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CHILDHOOD EDUCATION

For the Advancement of Nursery—Kindergarten—Primary Education

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Why Nursery Education?

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SHOULD we have nursery schools? There is only one answer to this question: only if nursery schools offer something that children need and otherwise would not get. The nursery school in the United States was established for two primary purposes: to study the developmental needs of children two to four years of age and to demonstrate practically a program for them which would incorporate the best known practices in preventive medicine and health (including nutrition), educational activities, and mental hygiene. I shall attempt to analyze briefly the developmental needs of young children and to indicate in general how adequately these needs are being met in these three areas.

Preventive Medicine and Health. Sleep and rest, fresh air and exercise, nutrition and elimination—these are the prime health needs of preschool children. In addition, however, there is rather general agreement that they need periodic health examinations and immunization against smallpox and diphtheria. Periodic health examinations are necessary for the early diagnosis and treatment of incipient tuberculosis, eye defects, heart defects, carious teeth, diseased tonsils and other infections. The White House Conference Report shows that few health examinations are given after the first year due, in some measure, to the cost and to the fact that parents are indifferent or do not think it is necessary. Only one out of every four children is immunized against smallpox and one out of three against diphtheria. One of the important purposes of the nursery school, therefore, is to supplement the community health program through periodical medical examinations of children and through morning inspection by the nurse for prevention of infection within the group. Contacts are made with community agencies such as clinics, hospitals, and health stations for remedial and preventive work; in some cases, where the community does not offer it, actual clinical service has been given in immunization. But probably more important than all has been the education of the parents to the need of these health measures.

From the standpoint of nutrition preschool children have two needs: an adequate diet and good eating habits. Nutrition is basic to health since an adequate diet must care for growth, energy or activity needs, disease prevention, and to some extent appetite. It is nothing new to say that the nutritional needs of preschool children are

not being adequately met; hundreds of children of needy families are hungry, and surveys have shown that even when children have food the diet is not always adequate. The nursery school gives children food that is adequate in dietary essentials at a minimum cost for maximum nutrition and so prepared as to conserve food values, to be palatable, and to be digestible. The general hygiene of the nursery school helps to build good appetite, and the dietary extends their likes to a variety of foods.

Where problems have already arisen in eating such as, refusing food, holding food in mouth, regurgitating, dawdling and the like, the nursery school is in a strategic position to help the home in breaking down such habits. It is in the education of parents again that the nursery school can make one of its greatest contributions to the nutrition of children. Such a program includes helping mothers to select adequate food for children, suggesting how to cook it properly, and guiding them in ways of building good eating habits in their children at home.

Educational Activities. The educational activities of preschool children may be discussed under three headings: play activities, routine activities, and social experiences. The keynote of child life is activity. Preschool children need opportunity for such vigorous activities as climbing, balancing, pushing, pulling, lifting, rolling. On the other hand, they also need opportunities to manipulate, to construct, to build, to mould, to paint. In these ways they strengthen the growing muscles and exercise developing motor abilities. It is through these activities also that they learn those things that are essential for a little child to learn—an understanding of materials and skill in manipulation. They also learn ways of expressing themselves through language, construction materials and art materials. It is through such experiences that they acquire poise, assurance, a certain freedom from fear because they have control over the things around them. They build what might be called one of the essentials of mental hygiene—active, dynamic interests in their world—a vivid contrast to the unhappy, disgruntled children in city or country with "nothing to do."

Some children have these opportunities at home but in highly urbanized centers play space is most inadequate. It is also true that while the equipment which preschool children need is relatively cheap for groups of children, it is expensive for individual families. Little children need equipment for their play. As they grow older they will have more resources within themselves and equipment will become less important. In addition, children of nursery age need guidance in their play; their span of interest is short; their insight into possibilities is limited. They need the suggestion for the "next step" that sustains interest and insures growth.

The routine activities of preschool children are important for education as well as for hygiene. Through the activities which go along with eating, sleeping, dressing, washing, and toileting, children learn not only to adjust to routine and to expect the necessary activities, but they also gradually learn how to do things for themselves. In this way they gain in independence which gives them self-assurance and poise and prevents the resistance and negativism which so often come with the inhibitions that accompany routines.

If we look to the home to serve these needs of children, we find many that are doing it well. Likewise we find homes which lack the regularity which is necessary for building routine habits, others where the mother is too busy to take the time that is necessary in teaching children, and others where the mother does not appreciate the importance of routine habits for mental hygiene and education. Certainly the number of children who during their first two or three years have built up problems in eating and sleeping or bed-wetting are evidence that some supplementary service will be needed if children are to have the best guidance along these lines.

It is during the preschool years that children have their first social experiences, both with other children and adults. These are important psychologically because they may

have important effects on a child's social behavior as he grows older. To know how to approach another child, to respond to his advances, to play with the same blocks without getting into trouble, to take turns, to share, to be careful of another's house, to keep out of the way when someone is swinging, to help a younger child, to follow the leader, to help a gang of three or four—these are but a few of the social ways of behaving which children must learn before they are six. And they must learn them without too heavy a cost to their own personalities else such problems as shyness, domination, resistance, or evasion will gradually develop. It is during this period also that children need an opportunity to know adults outside the home and to lose gradually that complete dependence on mother or father which can be so inhibiting to normal development. The difficulties which arise in families with children of various ages show only too well the need little children have for association with children of their own age and stage of development.

What, then, should the nursery school offer in educational activities to supplement the home experiences of most of our children? First of all, an adequate environment with proper equipment and materials, and with guidance of the children in the use of these resources; second, regularity in routine activities, guidance in the building of good habits, and freedom and time to learn these habits; third, contacts with other children of the same age, with guidance in social behavior and human relationships. To the parents nursery schools can offer freedom from the care of the child for part of the day and suggestions as to ways of guiding the play and routine activities of children in the home.

Mental Hygiene. In the life of a young child it is essential that there be certain general procedures in order that there may be an atmosphere where wholesome personalities may develop. First, young children need a certain orderliness in procedure—an expected routine. They should be prepared for changes. Adults should be consistent in their attitudes and behavior toward children. The child who never knows what to expect or who has too many adjustments to make begins to build up resistances, is often stubborn, shy or afraid because of his own insecurities. Second, young children need an environment which is suggestive of activity, with freedom to act. The problems a child encounters should be within the range of his ability with guidance and encouragement when necessary. When such an environment is absent we find inactive, listless children; the naughty one who is "into everything"; the unhappy, whining child with nothing to do; the rebellious boy because his activities are continually thwarted; the insecure, timid child because things are too difficult for him.

Third, young children need, as we all need, sympathy, love, companionship—a sense of belonging and of being important and necessary to someone. Where such emotional security is lacking we find children lonesome, unhappy, timid, jealous or belligerently of the "don't care" type. When affection has been unwise we find children who are over-dependent, who can't make friends, who are self-centered, selfish, and "spoiled."

These mental hygiene requirements of early childhood are as essential for the home as for the nursery school. Where there have been difficulties in the home—anxieties of the depression, an over-worked mother, a lack of understanding on the part of the parents of the importance of mental hygiene—in such situations the nursery school has an opportunity for parent education which may have far-reaching effects.

Relation of the Nursery School to Kindergarten and First Grade. The relation of the experiences of children in the nursery school to the program of the kindergarten and first grade has important implications. The best preparation for school entrance is certainly adequate development before school entrance. The nursery school should offer preparation for kindergarten by providing experiences for children from two to four on the level of their development. In language development the nursery school teacher

has an opportunity to increase vocabulary and to check on baby talk and enunciation during the period when language patterns are being established.[1] The gradual introduction and adjustment to group participation and play which the nursery school gives should assure easier adjustment to the larger more complex group life of kindergarten and first grade. The mental hygiene program of the nursery school should keep children from forming habits which they will later have to unlearn: thumb-sucking, tantrums, negativism, enuresis and the like. An adequate program of guidance for children from two to seven should provide sequential experiences which are based on the developmental needs of children and which will insure continuity in their education.

Contributions of Nursery Education. The contributions which I believe the nursery school has to make to children, to parents, and to public education are:

1. To children: The nursery school offers to young children an opportunity for developing and maintaining good health; for the formation of routine habits; for learning through play activities, experimentation with materials, and social contacts; and for wholesome personality development.

2. To parents: The nursery school helps parents by releasing them from part-time care of the children and by helping them to understand their children and themselves better. In these ways the atmosphere of the home is improved for parents and children alike and tensions due to fatigue, worry, and lack of understanding may gradually relax.

3. To public education: To public education the nursery school has re-emphasized and re-vitalized two important principles of education: first, that education is concerned with the development of each individual child from the standpoint of health, intellectual development and personality; second, that home and family are vital educational forces and that the school is impotent unless it works with parents as well as with children.

To public education also, the nursery school has given an opportunity for preventive work with children by reaching them and their families in the most formative years of their lives—the years before legal school entrance. This work lies in the prevention of disease, of crime, and of maladjusted human beings—three of the greatest social and individual tragedies of our age.

There are in the United States today, according to the 1930 census, approximately seven million ninety thousand children two, three and four years of age. Until November 1, 1933, there were about three hundred nursery schools in the United States which cared for approximately six thousand young children. In less than a year the Federal Emergency Relief Administration has increased the number of nursery schools to approximately three thousand which are caring for sixty-one thousand children and their families. If there is any justification for this ambitious national program, if there is any evidence that the nursery school has something to give to preschool children in general then to public education goes this challenge: what about the seven million children of this age who are still uncared for?

[1] Fisher, Mary Shattuck. *Language Patterns of Preschool Children.* Child Development Monographs, Monograph No. 15. New York City: Bureau of Publications, Teachers College, Columbia University, 1934.

A new age has come. Its trend no man can forecast, but the spirit of America, our love for our children and our faith in the validity of education and the equality of educational opportunity lies at the center. Any people that loses hold of its traditions and its ideals cannot long survive. We are at the parting of the ways—one path leads to national decay—the other to renewed life and strength for our country. Let us accept the challenge of the new day by protecting and developing our children.

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Easter—A Festival Time for Children

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Spring bursts to-day,
For Christ is risen and all the earth's at play.
Flash forth, thou sun,
The rain is over and gone, its work is done.
Winter is past,
Sweet spring is come at last, is come at last.
Bud, fig and vine,
Bud, olive, fat with fruit and oil and wine,
Break forth this morn
To roses, thou but yesterday a thorn.
Uplift thy head,
O pure white lily through the winter dead.
Beside your dams
Leap and rejoice, you merry-making lambs.
All hearts and flocks
Rejoice, all beasts of thickets and of rocks,
Sing, Creatures, sing,
Angels, and men and birds and everything.

An Easter Carol by Christina Rossetti

THE discussion of "Some Uses and Abuses of Christmas Festivites" found in the December 1934 issue of this magazine may well be regarded as a preface to the following article, for the celebration of the Easter season or the Easter event, in its relation to children, holds some of the same problems which are presented by the Christmas festivities—problems of meaning and significance; problems of religious and racial differences; problems of mutual tolerance, appreciation and understanding; problems pedagogical and philosophical.

The Easter season is unquestionably a festival time for children, a time when emotions and ideas may find joyous expression in dance, song, drama and pantomime. But just what should Easter mean to children? How can we celebrate it so that they draw from it something of its real meaning and value without confusing them with its complexity of ideas?

The solution of our problems may be reached in part by discovering something of the history and tradition which lie back of our present-day forms of celebration. Eastertide is, and has been for centuries past, a season of festivity for old and young the world over. Like the Christmas season it has both its religious and its secular significance, its serious and its joyous aspect, all closely interwoven. But I wonder how many of us stop to think what all the various forms of celebration indulged in at this particular season of the year really mean; where and under what circumstances they found their way into human experience.

The Origin of Easter. The world at large may take the Bible story of the resurrection of the Christ as its basis for the observance of Easter, but prior to the Christian Era we find ancient pagan peoples holding festivals in honor of the Saxon Goddess, Eostre or Ostara, the goddess who personified for these ancient people the East, the morning, and the spring. The month of April was dedicated to her. The origin of Easter is found in the dim and distant past.

As many of our Christmas festivities are derived from ancient pagan celebrations of the mid-winter solstice, so many of our customary celebrations of Easter are founded on festivals which occurred at the time of

the vernal equinox. It may be that the name Easter is derived from the heathen festival of Eastur, held in honor of the spring sun which, after the vernal equinox, was again found in the East. The exact date of Easter Sunday is even now reckoned as the first Sunday after the fourteenth day of the moon "that happens to be reigning at the time of the vernal equinox."

Even after the dawn of the Christian Era, the spring sun and its movements continued to excite, to mystify men, and to create strange superstitions which, in turn, inspired strange rites and festivals. One of the oldest of these superstitions seems to have been that the sun danced on Easter morning. In certain parts of Scotland people believed that the sun would whirl around like a mill wheel and give three leaps. The outward expression of this superstition may perhaps be found in the primitive and ancient custom of dancing in honor of the sun after the vernal equinox. We are told that in certain parts of England maidens still arise early on Easter morning to see the dancing sun.

Still other curious superstitions have inspired certain peculiar customs and ceremonies. If, for example, on Easter Day the wind were in the East, it was thought by some to be a wise plan to draw water and wash in it and so avoid the ill effects of the East Wind. In the neighborhood of Mecklenberg it is said that maid servants either arise early to carry in the Easter water in order to wash in it, or that they spread cloths on the garden the evening before to catch the dew for washing themselves as a precaution against illness.

A similar custom showing the superstitious nature of these simple peasant folk was called "sugar cupping"—observed in certain parts of England on Easter morning. Young people gathered together, each provided with a cup containing a small quantity of sugar or honey. They then caught water, mixed it with the sugar or honey and while they drank this they repeated certain doggerel verses—the whole ceremony being a charm against ill health or ill fortune.

Symbolism. Many of the early celebrations grew out of an effort to symbolize the meaning of Easter. The so-called Easter Parade of New York City is no invention or innovation of the modern world. It had its beginning in one of the oldest of the Easter customs, and that custom, in its origin, was symbolical. Young and old, centuries ago, went forth to the village green on Easter Day dressed in spick and span newness or with some one new article of apparel, which competed with the newness found in nature itself and symbolized the new life which sprang into being at this season.

The Easter egg, the Easter hare, and the Easter lily are three great symbols of the Easter season. The egg early symbolized the resurrection; the hare, purity and innocence; the lily, one of the earliest of the spring flowers, new life.

The origin of the use of the egg as a symbol of Easter is ascribed to several sources. Some trace it to the theology of the Egyptians, Persians, Gauls, Greeks, and Romans —to all of whom the egg was an emblem of the universe, the "sacred emblem of the renovation of mankind." Others say that to the Phoenicians the egg may have been "the symbol of the golden moon floating in that far away liquid space whence come the spring rains; whence, too was believed to come the impulse of the new life which yearly breaks through the hard shell of the frost-bound earth."

This traditional use of the egg at Eastertime has also a legendary source. In an article entitled "Easter in Germany,"[1] F. E. Corne gives what he believes to be the original legend of the Easter egg by Christoph von Schmid. The legend runs somewhat as follows:

A certain Duchess Rosilinda von Lindenberg was forced by war to flee from her beautiful home. She found refuge in a small mining village where food and supplies were extremely meager and where fowls were unknown. When she dispatched her old servant to gain news of his master, she asked him to bring back some fowl from the East. The servant duly returned bringing with him a crate of fowl. The good duchess saved the eggs for a feast and taught the women of the village how to prepare them.

[1] Corne, F. E. "Easter in Germany," *St. Nicholas Magazine.* 5: 381–385, April 1877.

As Easter approached the duchess was most anxious to arrange some pleasure for the village children and decided to use eggs, "as an egg was the first gift of reviving spring." She invited the children to go into the woods and to make nests. Each child marked his own. After they had returned home she placed colored eggs in the nests and when on Easter morning the children found the eggs they said, "The hares lay colored eggs." They continued to repeat this until they really believed it.

When the war was over, the duchess returned home but she left sufficient money in the village to make possible every year the Feast of the Eggs and the Egg Hunt. She also introduced the custom in her own country.

Whether true or imaginative, the legend is significant and entirely in keeping with the true spirit of Easter. Is it not a delightful way of introducing children to the symbolic use of the egg and the hare?

As has been suggested in regard to the symbolic use of the egg, the use of the hare as a symbol apparently has some real basis. Some say it has been adopted as a symbol of purity. Others state that the association with the Easter season had its origin in ancient Egypt and India. The following explanation is given us in *The Book of Easter*:[2] "The name of the hare in Egyptian was *un* which means *open, to open, the opener*. The moon was the open-eyed watcher of the skies at night, and the hare, born with open eyes, was fabled never to close them." The significance here lies apparently in the older association with the word *opening*.

Games. In many of the older celebrations of Easter, games played a large part. On Easter Day even the priests joined in ball games in which the winners were awarded tansy cakes. Archery, for which the drum sounded the proclamation throughout the town in the early morning, was a healthful form of amusement on Easter Monday. When the contest was over the winners were awarded prizes, and afterward all marched to the town hall and breakfasted together.

In certain parts of Germany and England, games were played with Easter eggs. In one of these the person carrying a hard-boiled Easter egg challenged any one he met to strike eggs with him. If his egg broke that of his opponent it was called "cock of one," and he had the broken egg for a trophy. When it had broken two, it was called "cock of two" and so the game proceeded.

Another of these old games played with eggs at Easter time was a form of relay race in which the contestant had to take all the eggs out of his basket one by one, run with them to the top of a nearby hill, and afterward return them to the basket in the same way.

Still another ancient sport for Easter Day was the selection of the Easter King from the peasant folk. After the selection was made, the king was dressed gaily, given a crown to wear and a scepter to carry in his hand. For the one day he went about receiving homage from all he met.

Many more examples of the old customs and festivities might be cited here, but those already described show clearly that during the pre-Christian era, and from the earliest period of Christianity, this season of the year has always been a period of greatest joy. Exuberance of spirit, abounding joy and goodwill characterize all of these old customs. Easter, one of the most joyous days of all the year, marks the triumph of life over death. Regardless of all religious implications, race, creed, personal faiths or philosophies, Easter means springtide and the reawakening of nature after her winter's sleep. The two concepts, Easter and Spring, are inseparable. There is ample reason for their simultaneous appearance and celebration. The event which caused Christians everywhere to mark the season and the day finds its counterpart in the advent of Spring. Hope and joy are renewed within us with each returning Spring. This, then, marks perhaps the first significant meaning of Easter for children, and its meaning is made clear to them by the natural phenomenon which is so apparent to them at this time.

How Easter is Celebrated Today. Such holidays as Christmas and Easter, celebrated for centuries, cannot but have gathered

[2] Compiled, edited and published by The Macmillan Publishing Company, New York; 1910.

about them a body of culture and tradition which in some sense marks the evolution of human thought. Around them, too, has accumulated a substantial body of art, music, drama, expressions of emotions, ideas and beliefs. The foregoing discussion has, in a very brief manner, suggested something of this. But what are some of the ways in which Easter is still celebrated, and where are these festivities still marked with some of the beauty, the charm, and the joyousness of those ancient celebrations?

Caroling is not limited to Christmas alone. There is still found in certain sections of the Tyrol an example of the beautiful custom of Easter caroling. The following description is taken from Chambers' *Book of Days*:[3]

> It is the evening of the Holy Saturday. The Tyrolese keep the festival of Easter with every ceremony. . . . Civilization has passed that land by and not left a trace of its unbelieving touch. The resurrection of Christ is still for them the tangible proof of revelation, and they honour the season accordingly. Bands of musicians, for which the Tyrolese have always been noted, traverse the valley singing the beautiful Easter hymns to the accompaniment of their guitars; calling out the people to their doors who join them in the choruses and together rejoice on this glad anniversary. Their hats are decorated with bouquets of flowers; crowds of children accompany them, and when night comes on they bear torches of pine wood.

Another interesting and picturesque custom, which has about it the old idea of caroling, is found in Greece. Here the boys celebrate the return of Spring by carving out wooden swallows, placing them on sticks, and going about the streets carrying these, singing as they go:

> She is here, she is here!
> The swallow that brings us the beautiful year;
> Wide open the door!
> We are children again, we are old no more.

As they go from house to house, people open their doors and give them little presents of candy.

The gift of the Easter egg is still a favorite custom, especially in Germany, where, too, the Easter hare is almost as important a figure as is St. Nicholas. Here, if children are good and mind their parents, if they are kind to one another and are truthful, the Easter hare steals in on Easter Eve and leaves beautifully colored eggs in odd corners. Fortunately the Easter hare is allowed to remain purely a creation of the imagination. It may therefore be somewhat easier to avoid literal interpretations and to "draw a distinction between fantasy and objective reality" than is possible in the case with Santa Claus.

And again, what could be more impressive than the custom in old Russia where, on Easter Eve, the people carried unlighted candles and stood about in crowds waiting at the cathedral for the bell to strike the midnight hour which was the signal for everyone to light his candle. Easter was the greatest feast day of all the year. As people went about, greetings were heard—"Christ is risen"—and the return salutation was always, "He is risen indeed." Friends kissed wherever they met. It was a most joyous time and a season of greatest friendliness.

Can we imagine the huge paschal candle, nine feet high, the lighting of which is a feature of the Easter celebration in Spain? This is lighted by a flint, and by this act is indicated the renewal of life. Here, too, Easter is celebrated with fireworks.

In Belgium, as in many other places, the bells are never rung on Good Friday, and the children are told that the bells have gone to Rome to be blessed. On Saturday the little folks make nests of hay in the garden and among the bushes and when at eight o'clock on Easter morning the bells ring out, the children rush to the garden to hunt for eggs.

Interesting customs are to be found in many other countries, such as going "a-palming" in merry England and the Aelperfeste in Switzerland. But again the few presented above are sufficient to indicate the general nature of Easter festivities which are still prevalent. It should be significant to children that Easter does not have meaning for them alone but for all people; that it has had significance and meaning for ages past and will continue to have significance and meaning for ages to come; and though

[3] Chambers, R. (Editor.) *Book of Days*. I, p. 431. Philadelphia: J. B. Lippincott.

it finds varied expressions among varied peoples, the basic facts of life which it celebrates are universal facts.

Acquaintance with the cultures of other peoples and the re-enactment of the folkways and folk customs of the older countries should prove a very important factor in bringing about greater appreciation, understanding, and tolerance of other peoples. The investigation of such customs in minute detail will reveal excellent possibilities for festival material. As the older ceremonies were based on song, dance, drama, and folk art, so by their use as basic festival material we give children the opportunity for the creative use of song, dance and drama as expression of their own personal emotions and ideas.

The close relationship of the Easter season with the advent of spring holds significance for teachers when considering forms of festivities suitable for children at this season. For not only do the celebrations of the return of spring, still surviving in the older countries of Europe again furnish us with a rich store of materials for festival use, but so does ancient mythology which recounts the "festivals of the divinity of spring."

Where is the joy of springtime and the spirit of Easter more beautifully told for children than in the well-loved story of the *Selfish Giant*[4] by Oscar Wilde, where we are told that "the trees had covered themselves with blossoms," "the birds were flying about and twittering with delight," and "the flowers were looking up through the green grass and laughing?"

And so, as we initiate our children into the celebration of the Easter season, may we preserve for them something of the beauty and inspiration of those early festivities and bless them with the faith and hope which has for these thousands of years been renewed in mankind with each returning spring.

[4] Wilde, Oscar. *Happy Prince and Other Stories.* "The Selfish Giant." New York: Frederick A. Stokes, 1913.

Meeting the Easter Bunny

On Easter morn at early dawn
  before the cocks were crowing,
I met a bob-tail bunnykin
  and asked where he was going.
"'Tis in the house and out the house
  a-tipsy, topsy-toeing,
'Tis round the house and 'bout the house
  a-lightly I am going."
"But what is that of every hue
  you carry in your basket?"
"'Tis eggs of gold and eggs of blue;
  I wonder that you ask it.
'Tis chocolate eggs and bonbon eggs
  and eggs of red and gray,
For every child in every house
  on bonny Easter Day."

He perked his ears and winked his eye
  and twitched his little nose;
He shook his tail—what tail he had—
  and stood upon his toes.
"I must be gone before the sun;
  the east is growing gray;
'Tis almost time for bells to chime,"—
  So he hippety-hopped away.

ROWENA BASTIEN BENNETT
Around a Toadstool Table
Follett Publishing Company

How to Establish an Integrated Activity Program

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ACTIVITY programs are being adapted rapidly by public school systems in various parts of the United States. The new informal unit teaching programs introduced by the private progressive schools are being tried in various large city school systems. While many teachers and administrators understand the basic philosophy underlying the new practices, there are many who imitate because it is fashionable and who do not know the reasons for making changes from the traditional methods of educating children. Why integrate? Why disregard subject-matter divisions? Why teach by units? Why have movable seats? Is the answer "that it is the thing to do because others are doing it" sufficient? Are trained educators to be moved by fashion and blind imitation? If so, their attempts with the activity program will fail. The mechanics of an activity program are no more the cure-all for the current social and economic chaos than the mechanics of a traditional lesson-learning program. An activity program will educate children in the new era no more than the socialized recitation, the project method, student government, and other passing innovations did in their time. It is essential that the basic purposes be understood by all who would share in establishing and directing a unified program of education. With these fundamental basic purposes in mind, as well as all of the other factors involved, it becomes a matter of the degree of intelligence with which one works when one plans the details of an integrated activity program.

One of the first steps in establishing the new program is to make sure that many of the people in the community want the kind of education for their children which a well-organized activity program provides. If a teacher is qualified and interested in working with such a program she may find that her community is unsympathetic to deviations from what they have come to regard as education. Such a teacher has several choices. She may work out a plan with her administrative officer to introduce changes slowly and to justify her work with reports of tangible results. She may win her parents over in various ways. She may resign and seek a position in a community where there is a demand for the type of service she wants to render. There is a great demand in private progressive schools for widely-educated men and women of culture who are interested in and capable of educating children with the newer methods and materials. Such men and women are wasting their time and talents in insisting that a community buy their wares when other communities are waiting to pay high prices for them.

In connection with this, the problem arises of securing the cooperation of the administrative officer who is not entirely in favor of the activity program. In a recent questionnaire study[1] the following solutions were rated as good: (1) invite the administrative officer to the classroom to see the planning and evaluation of the work; (2) offer to experiment with the activity, to test and compare the results with those from more formal teaching situations; (3) invite the administrator to simple room programs; (4) arrange an exhibit of the work; (5) discuss frankly with the administrator the problem of introducing an activity, presenting a plan for its development; and (6) move so slowly and gradually that the administrator will not object. The same raters of the questionnaire considered it undesirable for the teacher to make no attempt to introduce an

[1] Adams, Fay. *The Initiation of an Activity Program into a Public School.* Contributions to Education, No. 598. New York City: Bureau of Publications, Teachers College, Columbia University, 1934. pp. 53–56.

activity if the administrator is not in sympathy with the movement.

Assuming that it is possible to secure the cooperation of parents and administrators, the next step it to revise the curriculum. Curriculum reconstruction would involve the setting up of general objectives of the school. It would provide for a continuous recording of units of work as completed by various groups of children. These records would include evidence of mental, physical, and social growth along the lines indicated by the general objectives. There would be some units worked out in detail to serve as models or as suggestions. The curriculum would be recorded as the groups of pupils participated in the various enterprises.

Some changes are needed in the way teachers would regard the traditional courses of study in the various subjects. The content subjects such as, geography, history, science, civics, health, industrial arts, household arts, and citizenship would be abolished as subjects to cover. Instead, broad units of work pertaining to a related series of problems and activities would be carried on, making use of any materials classified under the content subjects. Such a program of broad units would be unified or integrated. No attempt would be made to cover the same material that is now included in the content subjects. Such an attempt would result in the selection of units either narrow in scope or artificial and lifeless in nature.

When integrating the content subjects, it is desirable to emphasize the "new history" point of view which aims for a better type of world citizenship. The proponents of this "new history" believe that the history of mankind is a single whole and that it can be comprehended only as a whole. We must give pupils a just conception of human origins and the general development of human life before they can form any proper picture of their place in the world as a city or as a nation. The study of this general history in the elementary grades serves well as a basis for later study specializing in local, national, or period histories. The conception of a new education, however, involves more than the understanding of history as one process. History reaches back into pre-history and that passes insensibly into paleontology. Such a survey of the development and progress of mankind would of course be limited to the more important aspects of the growth of man. Surely considerations of how man has improved in his ability to procure, prepare, and preserve food, or how he has developed in his power to make and use tools and machines are more fundamental than the fact that the New World was settled by Europeans, than the causes and results of a certain war, or than knowing the tenets of the two chief political parties during a certain decade of national history. The fundamental activities of man through the ages are those in which most of the people spend most of their time.

The new school teaches by samples—large, important samples of living—and it pursues all the implications of the samples. No school person ever did "cover" a subject. Traditional teaching was concerned with samples, but they were largely unimportant samples of small corners of life, or samples of variable aspects of life. In the choice and method of handling these samples lie the general purposes and objectives of the elementary school. Uniformity in choice among schools or even within a school has never proved to be an asset.

The new education involves also the assimilation of certain broad biological ideas. These for the most part have been omitted or have been forbidden in public education. At the present time they are not being developed in most of the private progressive schools. Only a few teachers in a few of the progressive schools are doing anything with broad units in such a way that general principles about physical life are being grasped by young children. The separate courses in science and nature study have failed in the elementary school to help children derive healthy general basic ideas concerning the evolution of flora and fauna, concerning the origin of man, concerning the conception of life, or concerning heredity, adaptation, or selection. This phase of the new education

will probably be the last phase to be developed.

A third aspect of the new education provides for a better general conception of economic life, of industrial processes, and of trade and transportation. These must be studied in their relationship to man and his needs. Most of this work requires many contacts with the environment. Many field trips must be taken. Many materials from the environment must be brought into the classroom. Very few techniques have been worked out for the provision for many first-hand contacts with the environment. Some of the progressive schools in Europe and in America have pioneered in this form of education.

Attempts to build up a modern ideology are going on at present chiefly in the minds of adolescents and adults outside of ordinary schools. It is the responsibility of public schools to keep up with the real world of events and to prepare pupils to participate in this real world now. Logical and systematic surveys of geography or history have not educated children to participate in the real world in which they live.

In addition to resynthesizing the content subjects, some changes must occur in the tool subjects. These changes should be in line with the sensible rule that we teach children only the things that they are old enough to understand. If it is discovered scientifically that children must be twelve years old mentally to understand when and how to use long division, or that they must be thirteen years old mentally to appreciate the meaning and function of an adverb, it is professional to base practices on such research findings. Public schools need to establish more reasonable standards in the tool subjects. Of course standards are necessarily individual just as are made-to-order suits of clothes. We must decide what each child can do before we have him do it. The mental age as well as a dozen other factors must be studied before we can establish a standard for each pupil.

American schools have been covering more topics in arithmetic than the children really do learn, if standardized test results are interpreted correctly. For example, in order for a child to score grade 6.0 on a widely used standardized arithmetic test, it is necessary for him to solve correctly only fourteen easy problems, thirteen of which are one-step problems with integers, and one of which is a two-step problem involving no number larger than fifty. Yet children are made to cover much more ground than that before they reach sixth grade. Typical courses of study assign two- and three-step problems with integers, fractions, and decimals. Teachers cover compound multiplication and long division, yet their children do not have to work problems requiring these processes in order to score grade 6.0 on this test. It is to be remembered that the norms on standardized tests are established on the basis of actual performances of many children in many typical public school situations. These norms together with the test items show what average children can do and cannot do at various grade levels. Yet traditional schools are blindly covering topics which their children do not learn. The new school would avoid this. Only those topics which arise in a rich well-balanced school life would be taught, and they would be taught in connection with the activities in which they were needed.

The new school includes only the drill necessary for the accomplishment of the school activities. Reports of research[2] indicate that arithmetic topics can be mastered without the customary amount of repetition and drill. These reports suggest that with a small amount of drill added to the experimental program, superior results probably can be obtained.

Much less time is spent on drill subjects in the public schools which have activity programs. In a questionnaire study[3] conducted by the State Department of Education of New York, it was found that the school systems of that state which had adopted the activity program reported much less time devoted to drill subjects. The av-

[2] Mapes, C. and Harap, H. *Six Activity Units in Fractions.* Bulletin No. 33. Curriculum Laboratory, School of Education. Cleveland, Ohio: Western Reserve University.

[3] Morrison, J. C. *Cardinal Objectives in Elementary Education.* Bulletin No. 4. Albany, New York: State Department of Education.

erage daily time in minutes was reported as follows:

Spelling	10
Arithmetic	23
Grammar	9
Writing	9
Reading	23

The progressive school recognizes and utilizes real arithmetical situations existing within the unit, the school, or the community. It recognizes English expression as a basic part of all activities. It regards books as tools in the solution of problems. Libraries are used as reference rooms. Many more types of reading are carried on.

The next step in revising the curriculum for the new school is to provide a continuous stream of creative activities. Much of this can be done in the field of the creative arts—music, fine arts, bodily training, writing, and dramatics. At present the psychology of drill is being used too largely in the teaching of these subjects. Instead, the activities of children in these fields should be dominated by the play impulse. They should not be selected and controlled on the basis of what kinds of lessons may be disguised in them. At present music is confined to one limited form of expression—group singing. To this end an inordinate amount of expression is placed on the bare mechanical acquisition of technical ability to recognize musical notation. In art, emphasis is placed on the technique of art processes and on the recognition of art principles illustrated in the works of the great masters. In the other creative arts, emphasis has been on learning lessons on technique. Since we seek to produce superior children through the incitement of the creative act in our schools, it is necessary to change the method of teaching in the creative arts.

In summary, the chief changes in the curriculum for the new school should be: (1) utilizing units of related and integrated activities whose intellectual possibilities consist of resyntheses of subject matter cross-sectioning the traditional content subjects; (2) reducing the number of topics in the drill subjects to those that are actually understood by the individual pupils who are to study them; and (3) setting up a regime of creative effort on the part of the children in all phases of school work, but especially in the creative arts.

In order to make an integrated activity program work, it is necessary to recognize some principles underlying the construction of a time program. The traditional program was one broken into one-hour blocks, half- and quarter-hour blocks, and many blocks of only a few minutes length. This program appeared adequate for the hearing of lessons, the chief purpose of traditional recitations. In one large American city, teachers of upper elementary grades have had as many as nineteen different subjects each week to teach one group of children. Some of the newer subjects were programmed once a week, many of the older subjects more frequently. It was impossible for the laws of learning to operate in any of the subjects. Very little provision could be made for readiness, for exercise, or for effect when teaching children the facts of citizenship or health thirty minutes each week.

In the activity school children share in making the daily program. They share the responsibility for carrying it out. They state their objectives and help to formulate a program in terms of periods of time set aside for doing the various things planned by them. Such periods include each week (1) time for the group to confer relative to the state of enterprises in which they are engaging and to decide upon the things they should do next; (2) time to solve challenging questions; (3) time to acquire techniques, skills, and knowledges needed in carrying on their work; (4) time to do creative or constructive work; (5) time for consumers enterprises in music, art, and literature; (6) unassigned time when children may carry out duties for which they are responsible to the entire group. In such programs, about one-fifth of the school day is devoted to the drill subjects, about one-fifth of the day to problem-solving activities, and the rest of the day to other activities. It is not necessary nor de-

sirable that all of the types of activities occur every day or even every week.

The new program should consist of a number of two-hour and three-hour periods unbroken by special subjects, lunch periods, or assembly periods, to make it possible to work along some line of interest in construction, in research, in experimentation, in dramatization, or on a field trip.

Music, gym work, and other special subjects need not occur every day if the drill aspect of these fields is not dominant. There was a time when such special subjects were interposed in the program to relieve the monotony or the tension of the academic work. With much more physical and manipulative activity in the regular school program, the special subjects need not be considered as "recesses." Much more creative work can be done in one-hour periods in the creative arts than in short and more frequent periods. Furthermore, if these subjects are not programmed every day for one class of children, there is more opportunity to have long unbroken periods in the home-room activities. If the special teachers are to integrate their work more effectively with that of the unit, they should not be assigned to teach too many different classes. It is impossible to prepare work adequately for so many different groups of children in each of which a different unit is being carried on. One way out of this difficulty is to "cycle" the creative arts. By this plan a special teacher teaches certain classes for a six-week period and teaches another group of classes during the next six-week period. It is important that the new program be flexible so that children and teachers together may plan the periods and budget their time.

The problem of space, too, must be considered. There is no evidence that the new program requires more space to function effectively than the traditional program required to function unhampered. The problem seems to be one of a different type of space utilization. It is true that many school houses do not offer enough space for the new education. The chief reason is that they never did offer enough space for any kind of education. Most school buildings have been planned for the hearing of lessons rather than for the carrying on of activities. Many school buildings have been built to please the eye, to look beautiful, rather than to be of service to the greatest number of people.

Since school buildings must be used as they are, some makeshift arrangements and compromises must be made. One way of handling the problem is to make an inventory of all available space, including corridors, large closets, auditorium stage, floor of auditorium, janitorial space, basement rooms, roof space, and space outdoors. The total available space should be apportioned equally among the groups of children in such a way that each group has full-time use of a room for conference, construction, clothing and book storage, tools, equipment, and material storage. In addition, there should be part-time use of space for noisy work, dirty and messy work, games, dramatization, music, library, cooking, and experimental work requiring gas, electricity, and water supply.

The room which each group has for full-time use may be considered as a camp base. It should be equipped with movable furniture occupying as little space as possible. The furniture should be such that it can be used in many different ways. Simple individual flat-topped tables of two or three heights containing one drawer, and separate straight-backed chairs of two or three sizes should be provided each pupil. With such furniture it is possible to combine tables of the same height in varying numbers to form larger tables. The chairs may be used separately in circle formation, in audience formation, or with the tables as furniture in informal dramatizations. In the activity school, children do not sit long enough in one seat to warrant special high-priced adjustable furniture that can be used for only one purpose. Very often they sit in each other's seats, on the floor, on tables, or are found standing at their work.

The problem of equipment and of materials is not so much one of increased expenditure as it is of economy and utilization of cheap or free materials obtainable in the environ-

ment. Some improvements need to be made in the present system of purchasing and distributing supplies. Adam's study[4] lists the following:

1. Managers of purchasing departments should consult with teachers and revise the lists of available materials in the light of their suggestions.
2. Teachers should not be required to hand in their complete orders a year or half a year in advance. While the approximate quantity of such basic essentials as paper, pencils and the like may be estimated, it is almost impossible to determine whether certain other materials will be needed. Teachers should be allowed to make additional orders from time to time. The system which provides for only an annual or a semi-annual requisition is wasteful. In their anxiety to make sure that they will order enough supplies to last over a long period of time, teachers are likely to ask for materials which they will never use.
3. A small sum of money should be kept in each school for the purpose of meeting needs which cannot be foreseen. Teachers should be able to draw upon this fund to purchase supplies which are needed immediately. It is important that they be able to get small sums from this fund quickly and without unnecessary trouble.

Some of the progressive school systems such as Bronxville, New York, secure materials for their teachers in this manner. All purchases except those of a trivial nature are made through a purchasing agent who secures any possible discounts.

Another necessary step in carrying on an integrated activity program involves the perfection of techniques for selecting and evaluating units of work and for planning such units. Teachers themselves must learn how to select, evaluate, and plan activities before they attempt to guide children in these difficult processes. There was a tendency in the early period of the activity program to choose activities because they included the need for certain skills. That is, the need for a skill proficiency predominated, not the suitability or value of the particular activity to the group of children in question. The point of view now held is that an activity may make a child aware of the need for acquiring certain skill processes, but it should not be chosen simply because it offers an opportunity for practice in the tool subjects. Some additional characteristics of a worthwhile unit should be considered:

1. The unit should involve socially important and constant experiences.
2. It should involve worthwhile fields of content, vital in terms of life meanings.
3. It should give additional meaning to the things with which the children come into contact.
4. It should help the children organize their experience.
5. It should lead the children into greater reaches.
6. It should teach children cooperation in living.
7. It should make the child more efficient.
8. It should give children much opportunity to control their group conduct.
9. It should be difficult enough to challenge each pupil.
10. It should consist of many varied related activities so as to appeal to all types of children, and also so as to offer a variety of avenues of learning to any one child.

Four methods of selecting units are common in schools which have activity programs. The unit may be selected by the pupils or by the teacher.

1. The teacher begins with no definite idea for a unit. She lists the suggestions of the pupils and helps the children prepare lists of possible contents for a proposed unit. These contents are in the form of things to do, things to make, places to visit, and questions to answer. Several proposed units may be thus considered by groups of pupils. Each group sponsoring a proposal presents its plans for a unit to the whole class for its consideration and evaluation. As this goes on, the teacher helps the children formulate criteria by which to judge the worth of proposed units. As the attention of the class gradually focuses on units seeming more worth while, the activity of those who sponsor units based on cursory, temporary, or capricious interests usually subsides and those children join forces with other groups. By the end of the second week, after some campaigning and compromising, the class votes for the final selection which becomes the unit of work the class will study. There are many modifications of this method, depending on the character of the group and on what methods of group procedure the teacher wants to teach the children.

[4] Adams, *op. cit.*, p. 52.

2. The teacher begins with no definite idea for the unit. She lists the suggestions of the pupils which are interesting immediate or remote experiences. As the suggestions are made, the teacher leads the group to explore them. In so doing, she has them set up criteria for evaluating their worth. She determines the intensity of group interest in a suggestion. When there is enough incipient interest manifested in a group toward a proposal, the teacher attempts to arouse activity toward the unit. If the interest subsides, the teacher turns to another suggested unit and repeats the process of orientation. Through a period of several weeks there usually emerges a permanent interest which the teacher capitalizes into a unit of work.

3. The teacher selects and prepares a unit in advance because she believes it to fall within certain areas in which the genuine interests of children of that age are usually located. She suggests, the unit and shows its possibilities to the class, permitting the group to suggest its own ways of carrying out the unit. When tentative plans are completed each child is permitted to vote for or against the plans. If not enough children vote for the plans, the plans are either modified or the teacher suggests another unit. Minority groups of children are held responsibile for submitting their plans. Criticism is kept constructive.

4. The teacher selects and prepares a unit in advance after examining the previous education of the particular group of children she is to teach. She selects a unit which will give richness, area, or breadth to their experience, or to fill in what appear to be important gaps. She suggests the unit and outlines its possibilities. She leads the pupils to give reasons why it should be undertaken. These reasons often are the same that the teacher had in mind. Tentative plans are made cooperatively, and the group has opportunity to vote for or against the plans. This method is used more frequently in the upper grades. It will be noticed that this method closely approximates the practice of curriculum making in traditional schools, but it is not the same, because the teacher has in mind a certain group of children whose previous records she has studied.

A teacher who wishes to lead children through a unit of varied and related activities should write a plan of the entire unit before she begins work with the children. This will help her to be a better leader of the children. Such a plan should be general and tentative and should include the following items:

1. Name of the study around which the activities of the children will center.

2. A list of the past experiences and present needs of the children which would seem to make this continuing and integrated series of enterprises interesting, challenging and worthwhile to them at this time.

3. A detailed outline of the subject-matter possibilities of the proposed unit.

4. A list of possible approaches to the unit which may stimulate the children to propose further activity in the unit.

5. A brief outline in anticipated sequence of the possible experiences which may arise and be interesting, worthwhile, and feasible. These should be classified in this or some other way:

a. Experiences of a creative nature where ideas are expressed concretely, including expression in any field of endeavor. (Producer's enterprises)

b. Experiences of an appreciative nature where the purpose is to enjoy a story, a poem, a song, a musical selection, a painting, or other work of art. (Consumer's enterprises)

c. Experiences in solving intellectual difficulties or problems. (Problem-solving enterprises)

d. Experiences in acquiring knowledge, habits, or skills where the purpose is to make automatic some responses, to fix a bit of knowledge, a habit, or a skill. (Specific-learning enterprises)

6. A list of ways of terminating the unit which might be desirable and probable and which would cause a reorganization of the children's experiences.

7. A list of anticipated outcomes of this study in terms of principles underlying the subject matter, in terms of intellectual and social traits of the pupils, and in terms of the skills in the tool subjects which may be taught.

8. A time chart of the number of hours each major activity will take, of the number of hours per week which are to be devoted to the unit and how they will often be spent, and of the number of weeks the unit will last.

This article has set forth some essential steps to be taken in changing from a formal school to an informal school. The necessity has been shown for community and administrative approval, for curriculum revision, for changes in the time program, for a different type of space utilization, for more adequate ways of obtaining supplies, and for

improved techniques in selecting, evaluating, and planning units of work. More important than any of these are the basic principles underlying the activity movement. These must be in the minds of all who would make changes.

In a recent article Kilpatrick[5] states, "The older educational view, to set before the young what they were to study and learn began back in days when man could go thirty thousand years without perceptibly changing his culture. Later, knowledge was largely thought of as authoritatively fixed either by revelation or by necessary laws of nature and thought. It was the individual's duty to acquire and accept and act accordingly. Education was specific, consisting of training in distinct habits, skills, facts, etc. Thinking was soft-pedaled; in any event, it was limited to the few. Personality was slighted. Education was to make people efficient according to a prearranged plan."

The traditional curriculum is essentially composed of subject-matter set out to be learned. The teacher sets the assignment, requires its acquisition, tests the acquisition, and promotes or fails the learner accordingly. On this position obvious pupil virtues are willingness to do as told, study hard, learn well, and recite accurately.

Opposed to this are those who wish the child to be more nearly self-directed. They believe that only as he practices the best on his stage of intelligent self-direction can he learn to be more intelligently self-directing. That this may be possible, they further believe that the desirable school life should take on more of the quality of the best life outside of school. They therefore seek to have pupils engage in desirable purposeful activity where the ends thus set up are the pupils' own and are felt and purposed as such.

To quote Kilpatrick[6] again, "The future with which man deals is not fixed but is in continual process. Actually novel events are still in the making. No mere fixed-in-advance responses could take care of our kind of world. Being novelly developing, it requires thinking and not mere habit to deal with it. Education should be primarily the process of building up good thinking, with of course, the correlative habits of acting obediently to the best thinking one can do. Acting upon thinking may then be taken as the unit element of the educative process."

The integrated activity program implies a democratic view of life. It should provide much opportunity for intelligent pupil self-direction and for an unselfish regard for others. The extent to which it provides for a better all-around education of the child will determine its success in public schools.

[5] Kilpatrick, W. H. "The Essentials of the Activity Movement." *The Progressive Education Magazine*, 11: 349, October, 1934.

[6] *Ibid.*, p. 359.

Teachers are unfortunately somewhat given to wanting to be told what to do, something specific. But is it not true that understanding of forces at work, of their direction and the goal to which they point, is the first prerequisite of intelligent decision and action? What will it profit a man to do this, that, and the other specific thing, if he has no clear idea of why he is doing it, no clear idea of the way it bears upon actual conditions and of the end to be reached?

JOHN DEWEY
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Experimenting in a One-Room School

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MISS ASHLEY had taught school in that same one-room building for fifteen years. She had watched the plaster fall and the paint scale from the outside. Each day was filled to overflowing for at ten- and fifteen-minute intervals classes marched to the bench in front of the room to recite.

Then the State Department of Education sent a helping teacher to Miss Ashley's county. Miss Ford called the teachers together and told them that they were to be free from the old subject-matter course of study. They had been talking about that for two years in their group meetings but so far nothing had been done about it. Miss Ford told them that they were to feel free to study the needs of their pupils and the communities in which they were working. A number of the teachers were stunned by the announcement for they thought that they were to have an extra amount of work in addition to the burden they were already carrying.

When Miss Ford made her first visit to Miss Ashley's school she sat through the long afternoon of recitation after recitation while the children stared in amazement at the stranger. Everyone stayed rigidly in his place and not even a whisper disturbed the dead quiet of the room. After the children had gone home Miss Ashley said, "Miss Ford, I have been thinking about what you said to us. I see that I haven't done anything but hear lessons all these years and I want to do something beside that. I have been thinking about our needs in this community and I believe I have found a real problem to work on but I do not know how to go about it. You know we have a great many babies in this county and many of them die every year. It seems too bad to ask children to memorize capitals and chief products and do square root and let a big problem like that pass by. You'll have to help me plan."

When Miss Ashley came to school the next Monday morning there was great excitement for she carried a large Plymouth Rock hen which wanted to brood and a basket with fifteen eggs in it. Still more astonishing, Miss Ashley said, "We'll not have arithmetic the first thing this morning but we'll take time to plan how to take care of this hen who is going to make her home with us for a while. She will need a box to stay in. The sixth grade boys may work on that at recess and noon. We need to plan her food carefully for we want her to stay well so that she will sit on the eggs we are going to put under her."

When the box was ready for the hen she was placed on the eggs where she settled happily with many cluckings. Work went on much as on other days except for suppressed excitement. Miss Ashley suggested that they use their English periods for the day by writing to the State Experiment Station for free material on how to feed the hen properly. The children found that they needed to learn to spell some words before they were ready to write the letter so the spelling period of several groups was used for that purpose. The little children made a picture of the hen on a large sheet of wrapping paper while the others were at work on the letter. They did not finish the letter to their satisfaction the first day, for there are many things to do when a letter is really going away that they had never bothered about when the English textbook said: "Write a letter." It was ready for the mailman when he passed the school at noon next day.

Late in the afternoon Miss Ashley asked if they would like to see an egg after a hen has been sitting on it for twenty-four hours. Of course they would, and Miss Ashley broke one in a saucer and group after group came up to see it. Already a change could be seen in the egg and the children were aston-

ished. They asked if they might not see an egg the next day and Miss Ashley agreed to break one each day at ten o'clock. A china egg was substituted for every real egg taken from under the hen. They let her keep one egg to hatch.

The bulletins from the Experiment Station arrived promptly and the older boys and girls read them eagerly and told the younger children what was in them. By this time many questions were being asked:

Where did the Plymouth Rock hen get her name?

Did Columbus find chickens when he came to America?

Where do other breeds of chickens get their names?

Do people in other parts of the world have chickens and eat eggs the way we do?

The older children wrote to Miss Ford to ask for help in answering their questions. She sent them a National Geographic Magazine with an article about chickens which had a great many pictures in it. The older boys and girls read the article and then several of them made talks to the entire school telling what they had read. They had to use the dictionary a number of times to be sure they had the real meaning of all the words they needed to use. They showed the other boys and girls the homes of the chickens on the world map.

The first day that the circulatory system showed in the egg a boy said, "Why, that is what we studied about in our hygiene book. It is really true, isn't it?"

Several small children learned to tell time so that they would know when it was time to break the egg each day. The first grade boys and girls made a reading chart about the news from the hen, added to it each day, illustrated it with drawings in colored chalk, and made a border of chickens which they cut from old poultry journals for the reading corner where all the boys and girls had helped make a cozy place by using orange crates for furniture.

The older children kept a journal about the eggs each day. They read it to Miss Ford when she came to see them.

A farmer in the community had a large incubator and raised chickens with scientific carefulness. Miss Ashley received permission to take her pupils to see his equipment. This was the first excursion the children had ever taken. Some of them had never seen an incubator although they had always lived in the country. The boys and girls asked the man many questions. He told them that the reason his chickens were so large and brought such good prices in the market was because of the care and food they received.

When the children returned to school they wanted to send for bulletins on the feeding of chicks. They wrote to a number of commercial companies and to the Department of Agriculture in Washington. When the material came it was read with real eagerness.

By this time all the eggs under the old hen had been taken away except the one she was to keep. When that chick arrived he stayed at school for several days and then Miss Ashley took him with his mother back home where the old hen was given some orphan chicks that had just come from the incubator. The children gave much excellent advice about the care of the chicken family.

Miss Ashley felt that the time had come to say, "If it pays to take such good care of chickens, do you think it would pay to take extra good care of babies?"

"Let's send for bulletins about that," some one suggested. "Maybe we can get free material on that, too." Letters were written to the Department of Health in Washington, to various insurance companies, and to the State Bureau of Vital Statistics to find the infant death rate for the past ten years in their county. They were shocked and astonished when the answer came. "We've got to do something about it," they said.

The children learned from the causes of death given in the report that many babies had died from diseases due to improper food and they set to work in earnest to help. They learned with Miss Ashley's help to boil bottles and to measure in ounces, how to keep food clean and cool and what kind of food babies need at different ages to make bones and teeth develop properly. The boys

made the fly traps suggested in the bulletins and measured several homes for screens and computed the cost of screening. As a result several homes were screened.

As the children were busy with these things, they asked questions:

How do people of other lands take care of their babies?

Did the pioneer babies die in greater numbers than they do now?

Does it really hurt a baby to sleep with its father and mother the way the book said?

When they read about the wonderful provision for child care in Denmark and Sweden their eyes were opened to a real kinship with brothers across the sea in a way a text book never could have done it. They learned to value, too, what our own government does for children.

The large girls learned to bathe and dress a baby. They made some simple clothing for a tiny baby whose mother had nothing for it. The boys made a folding play pen to put on a clean sheet so that the baby would not get dirty while playing. They gathered samples of water from the neighborhood which the state analysed for them. Several were found to be impure and they were abandoned.

Each child, even the smallest, selected a baby for special study. They watched to see if the baby had sufficient hours of sleep in a quiet place. They looked also for the first tooth and the first step as well as the first word. They checked carefully on the diet of the child.

Toward the end of the year the mothers were invited to school to see what the children had made and to hear a state worker talk on child care. The children had decorated the room with pictures and posters which all of them had helped to make. Some of the little children recited poems about babies.

When Miss Ford talked with Miss Ashley at the end of school the teacher said, "The standardized tests you gave showed how much my children have improved in reading. They have read so much because they were eager to find out about so many things. Before this I have just had reading lessons. We have learned a great deal more in spelling and oral and written English. We have written so many letters that our writing has improved. We had to send out a product that folks could read. We have had a lot of health work and geography and history and even some arithmetic in connection with our study of child care. We have had a great many regular lessons of course, but we have learned to use books because we want to find out things."

"Best of all," said Miss Ford "is the change in the children. They move about the room as they need to but with consideration for others. They work in groups instead of waiting to be told just what to do each moment of the day. I think of this school as a happy, busy place where real work is going on."

Miss Ashley smiled, "It is the first year I have really enjoyed teaching and I am quite sure that it is the first year I have really taught."

Blackboard mural made by sixth grade.

Cotton Pickers

Ben W. Murch School
Washington, D.C.

Air-Minded Seven-Year-Olds

KATHRYN L. CANISIUS
Marshall Field School for Children
Chicago, Illinois

WHERE do they keep airplanes? How do the planes get up in the air? What else is kept at the airport? Enthusiastic interest in aviation so overwhelmed these second and third graders that a trip to the Municipal Airport was planned. What do we want to see? What do we want to find out? How do we get out to the airport, and from whom do we ask permission? Letters were written, directions and means of conveyance were decided upon and the trip became a reality. What is this? What is that called? How does it work? descended upon the guide from all sides.

So greatly was the visit enjoyed that the children decided to have an airport in their own school room. The final plans called for a hangar, beacon, wind indicator, and a bulletin board for posting memoranda, charts, maps, schedules, and notices. Wire for the beacon was measured, the amount of wall board and wood for the hangar was estimated and the cost of paint, sockets, plugs, tacks, and nails was computed. In addition to these activities they were busy reading for accurate information, giving reports to the group, and writing letters asking for bulletins and materials from airlines. Frequent news notes appeared:

Yesterday Thomas made wings for our hangar. Today I'm going to send a letter to the Junior Birdmen of America.

Out of this work grew the need for a group spelling dictionary. Pages were cut and labeled as in a regular dictionary and words were added as the need arose. "Please write 'amphibian' in the dictionary for me," requested a third-grader of the teacher and this new word was added to the A-page. When the study was finished, these words filled the A-page:

air, airplane, aviator, aviation, airport, aircraft, aileron, air-speed indicator, altimeter, amphibian, autogiro, altitude, ace, airship, apron, appreciated, aviatrix, almost, along.

With this handy helper easily available the children felt free to write. Riddles, reports, stories, letters and poems were written independently and read to the group.

Riddles

1. They are streamlined. They break the wind and keep the wheels from dragging. What are they? (Wheel-pants)
2. It is on the instrument panel. It tells how high you are in the air. What is it? (Altimeter)
3. It tells how hot or cold the motor is. What is it? (Head temperature)

A Story

I am a pilot. I like to fly and I belong to an Aviator's club.

I have a plane. It is a silver-colored plane, and it is a very fast racing plane.

Peter is my dog. He is a smart dog. Whenever I go up in my plane, he runs out of the hangar and barks at the plane. He wants to fly with me.

A Letter

Dear Mr. Edwards,

I thank you for giving us permission to go into the hangar and repair department. It was very interesting, especially in the repair shop and battery room.

Mr. Davis is a very nice guide and we liked him very much.

We are going to make an airport of our own. We are having a beacon, hangar, wind indicator, and a bulletin board.

We wish you would come to see our airport when it is finished.

We like the new Transport planes.

Yours truly,
Thomas King

The bulletin board was important in the work as there were interesting newspaper clippings about flyers and flights to post. Lists of books and the pages on which to find aviation stories and pictures were posted. Notices of trips were always placed on the board as well as correspondence from airlines.

As work progressed, it was evident that an experienced flyer was needed to answer questions, so a pilot was invited to come to school to talk to them. His information stimulated more specific questions, such as:

1. Why don't propellers have four blades?
2. Why don't transport planes carry parachutes?
3. How many gallons of gasoline an hour do planes use?
4. Why do planes take-off and land against the wind?
5. How can you find your way flying at night?
6. What are tail skids used for?
7. How low can you jump from a plane with a parachute?
8. Why does a plane have wheel-pants?
9. What is the difference between a sea-plane and an amphibian?
10. How hot does the motor get?
11. Where is the artificial horizon?
12. What do you have to do to be a pilot?
13. What makes the plane go up or down?
14. What steers the ship?
15. What does a co-pilot do?
16. What is the hardest part of flying?

The pilot's visit and talk on aviation and his illustration of an instrument panel inspired one group to make a diagram of a panel for themselves. Another group made up a game with the panel. One child who was "It" would point to a part on the panel diagram, call upon another child to name it and to state its purpose. If correctly answered, he would call upon another child.

In order to give more meaning and understanding to facts which were being readily assimilated, the Lindbergh Beacon was visited and a second trip to the Municipal Airport was made. This time questions were of a different nature because the names of parts and their exact location had a special significance. Now they asked: Where is the altimeter? Where are the wheels drawn up on the Transports? Where is the artificial horizon? Why do you have to use the "blind-flying plane" for your pilots? Why are the planes refueled as soon as they are brought in the hangar after their trip?

Interest never waned throughout the entire unit. This was evidenced by the books of drawings of various types of aircraft. Often on Monday mornings the children would bring in work they had done over the week-end or tell of visits to the airport with their parents to watch the planes "take-off" and land.

They were so eager to draw pictures of aircraft that it was decided to use them to good advantage by making a hanging for the room. The muslin was carefully measured. All types of transportation were to be portrayed as well as all types of aviation. The group served as its own judge. A child would bring in a picture he had drawn. The group would say, "That is a good picture but it is too small. You'll have to make it bigger." More work would be done on it. Sometimes when the group realized the picture was not suitable, an offer would be made as, "I can help you draw so you could learn to make those wings the right way," and a drawing lesson would ensue between the two children. Those who sensed their lack of ability in accurate drawing offered to cut out the pictures drawn by the others.

After the pictures were all cut out, they were placed on the muslin and pinned down with many pins to prevent the dye from running through. The blackboard and floor were covered with newspaper and Gypsy Dyes sprayed on with a fly spray from the top to the bottom of the muslin. When the muslin was dry, the patterns were removed and the parts previously covered by the pictures remained white. Three boys outlined the pattern figures with black crayon. Then the hanging was ready to be pressed and hung in the room.

Sharing the information they had learned gave such satisfaction that it was decided to have a program for the mothers. As invitations were important, the group wanted something attractive. Block prints were familiar to them, and a group of boys offered to make one. Pictures were drawn and the best one selected—an airplane in flight. This made an attractive cover for the invitations and programs.

The plans for the program were discussed. Each child was eager for some part and chose that which he was most capable of doing. One group planned a shadow play.

They drew and cut out cardboard scenery, pinned it on a tightly stretched muslin screen, and placed the screen before a window. The cardboard figures, which were tacked on sticks, were manipulated by hand so only the shadow of the figures was visible. This is the shadow play.

Our Trip to the Municipal Airport

Characters:

Guide	Radio Man
Teacher	Children

Act I

This act takes place on the outside of the Municipal Airport. The group is leaving the office to go to a company hangar. In passing, the various places of interest are explained.

Guide—Well, children, now that you are all ready to see the airport, we will start here.

Child—What is this building?

Guide—That is the depot.

Child—What is in there, Mr. Davis?

Guide—It is just like a railroad depot. There is a ticket office, a telegraph office, a lunch room, and a place where pilots can read over weather reports. You can wait for your plane to come on the apron when you are taking a plane trip. You children may go in there afterwhile.

Radio Announcer—Plane three miles northwest of Chicago, coming in from Milwaukee.

Child—Oh, what was that?

Guide—That was the radio announcer from the airport radio station. The radio man has just received the radio report from the plane and after he radios back to the pilot permission to land, he broadcasts over the ground station microphone that a plane is coming to the field so people who are waiting for the plane will know it is coming.

Child—What is in that big box?

Guide—That is the searchlight. It is lit when there is a heavy fog.

Child—What is that striped thing that looks like the back part of a plane?

Guide—That is the wind tee. It shows the pilots which way the wind is blowing.

Child—Why do they want to know that for?

Guide—Well, planes always land against the wind because the wind acts like a brake and slows down the plane. Planes "take off" against the wind because the wind helps to lift them up in the air.

Child—What are we coming to?

Guide—That is the hangar. We are going inside of it. A hangar is the place where planes are kept.

Act II, Scene I

This scene takes place inside the hangar. The group stands around a transport plane. The outside of the plane is explained first.

Guide—This plane has a wing span of seventy-four feet. It is a monoplane. That means a plane with one set of wings.

Child—What are these lights for on the wings?

Guide—They are the landing lights; they are used at night so the pilot can see to make his landing.

Child—Why does the nose of the plane open?

Guide—The mail is carried in the nose of the plane and the people's baggage is carried in a compartment behind the passenger cabin.

Child—What is the wire for on the top of the plane?

Child—Are these the seats the passengers sit in?

Teacher—Yes.

Child—What are these straps for?

Teacher—The passengers have to strap themselves in whenever the plane "takes-off" or lands so there will not be any accident.

Child—What are the nets for?

Teacher—The people keep small parcels and wraps there.

Child—What was that room, the one by the door where we came in?

Teacher—That is the lavatory.

Finding out how an airplane works.

Guide—That is the aerial for the pilot's radio. He can send in his report every twenty minutes, and he can receive weather reports or messages his company wants to send him.

Child—What does the pilot have to report?

Guide—Every twenty minutes the pilot reports his altitude, position, and the weather. Now, Miss, you can take the children inside the plane, but don't let them touch anything.

Act II, Scene 2

This scene takes place on the inside of the Transport.

Teacher—You three children may come in first. We will have to take turns.

Child—What is the small room in front?

Teacher—That is the pilot's cabin. The pilot sits on the left side and the co-pilot sits on the right side.

Child—Are these headphones for the radio?

Teacher—Yes. Do you see any instruments on the dashboard that we have heard about?

Child—Yes. I see the artificial horizon.

Teacher—Now we will leave here and go to see the planes land.

Act III

This act takes place by the wire fence beside the concrete apron from which the runways lead.

The various types of planes are described as they "take-off" or land.

Child—What kind of plane is that?

Guide—That is an upper wing monoplane.

Child—What kind of plane is that with the two sets of wings?

Guide—That is a biplane.

Child—What kind of plane is that? It has something under it, and it has wheels on it, too.

Guide—That is an amphibian. Those are pontoons you see.

Child—What is the difference between an amphibian and a seaplane?

Guide—An amphibian can "take-off" and land on both water and land. It has pontoons and wheels on it. A seaplane can "take-off" and land only on water. It has pontoons only on it.

Child—What is that? It has something like a propeller on top of it.

Guide—That is an autogiro. It can rise up in the air almost straight. It does not have to have a long runway to get a start and rise slowly. I think you have seen everything at the airport now, so your teacher better take you home. Good-bye boys and girls.

Children—Good-bye, Mr. Davis. Thank you for showing us everything.

The program served to summarize the work and enabled the children to organize the entire unit. They were well pleased and happy. The activity extended over an entire semester. The unit could have gone on much longer because when a child spoke of his visit to the Century of Progress he said it was too bad school was over for they could have learned a lot more about transportation.

Bibliography

A. Magazines

National Geographic Magazine

Byrd, Richard E. "Our Transatlantic Flight."
Vol. 52: 347–368, September 1927

Byrd, Richard E. "The Conquest of the Antarctic by Air."
Vol. 58: 127–227, August 1930.

Eckener, Hugo. "The First Airship Flight Around the World."
Vol. 57: 653–688, June 1930.

Kingsford-Smith, Charles E. and Ulm, Charles T. P. "Our Conquest of the Pacific."
Vol. 54: 371–402, October 1928.

Nobile, General Umberto. "Air Conquest."
Vol. 52: 233–242, August 1927

Siepen, Howard. "On the Wings of the Wind."
Vol. 55: 751–780, June 1929.

Wood, Junius B. "Flying the World's Longest Air Mail Route"
Vol. 57: 261–325, March 1930.

B. Books

Beamish, Richard. *Boy's Story of Lindbergh.*
Chicago: John Winston Company, 1928, $1.00
An easy reading biography of Lindbergh. Many illustrations.

Key, Alexander. *The Red Eagle.*
Joliet, Illinois: The P. F. Volland Company, 1930, $1.25
An aviation story giving true facts.

Knight, Clayton. *The Non-Stop Stowaway.*
Akron, Ohio: Saalfield Publishing Company, $1.00
An aviation story giving aeronautical facts.

Mitchell, Lucy. "Speed" from *Here and Now Story Book.*
New York: Dutton, 1924, $.50
To be read to the children.

Petersham, Maud and Miska. *The Story Book of Things We Use.*
Philadelphia: John Winston Company, 1933, $2.50
A part of this book deals with the progress of transportation.

Standard Oil Company. *It's Easy to Fly.*
A monograph. Many illustrations.

Stephenson, M. B. and Wood, L. *Wheel, Sail and Wing.*
Chicago: Follett Publishing Company, 1930, $.50.
An illustrated book for young children.

Navy Department Bureau of Aeronautics. *History of Aviation, Types of Naval Airplanes, Personnel of Naval Aviation, Handbook of National Aircraft Collection.*
Washington, D.C., Smithsonian Institute.

U. S. Navy Hydrographic Office. *Notice to Aviators, Memorandum, Pilot Charts of Upper Air.* Washington, D.C.

No Author Given. *The Book About Aircraft.*

New York: Frederick Warne and Company
This book shows types of foreign as well as American aviation.

C. Children's Stories in Readers

Cordts, Anna D. *New Path to Reading, Book III.* "Charles Lindbergh."
Boston: Ginn and Company, $.80.

Hardy, Rose L. and Hecox, G. L. *Good Companions.* "In An Airplane."
New York: Newson and Company, $.80.

Pennell, Mary E. and Cusack, A. M. *Children's Own Readers, Book IV.* "Exploring the Air."
Boston: Ginn and Company, $.84.

D. Teacher's References

Byrd, Richard E. *Skyward.*
New York: G. Putnam's Sons, 1928, $3.50
Man's mastery of the air as shown by flights.

Gould, Bruce. *Sky Larking.*
New York: Liveright Publishing Company, 1929, $2.50.
The romantic adventure of flying.

Gravatt, Lila. *Pioneers of the Air.*
New York: Mentzer, Bush and Company, 1928, $.80.
The title of the book is self-explanatory.

Green, Fitzhugh. *Dick Byrd—Air Explorer.*
New York: G. Putnam's Sons, 1928, $1.75
An intimate story of the great air explorer. This book contains many illustrations.

Hodgins, Eric and Magoun, F. A. *Sky High.*
Boston: Little, Brown and Company, 1929, $2.50.
The historical episodes in this book depict man's desire to conquer not only water and land but the air as well.

Holland, R. Sargent. *Historic Airships.*
Philadelphia: Macrae Smith Company, 1928, $4.00.
This book not only tells of the historical high points of aviation, but also carries a message of inspiration for future progress.

Klemin, Alexander. *If You Want to Fly.*
New York: Coward-McCann, 1928, $2.50.
Information is given in story form.

Lindbergh, Charles. *We.*
New York: Grossett and Dunlap, 1929, $.75.
The flier's own story of his life and the transatlantic flight, together with his views on future aviation.

Airplanes

Clouds in the heavens,
The earth nearby,
Airplanes on the runways,
Taking off into the sky,
Going up so very, very high
Into the great, great blue.
Then the planes glide down toward earth
And they bank their wings to you.

Second and Third Grades
Marshall Field School

Facts Regarding Aviation and Some of Its Possibilities as a Unit

F. E. ENGLEMAN
Principal of the Whittier School
Kansas City, Missouri

"THE aviation activity just completed in my second grade was by all odds more enthusiastically participated in by the children than has been true of any teaching unit in my several years of experience."

"This is the first time I have worked out a complete aviation activity and I must say that it has been the most successful project I have had in my kindergarten this year."

The above statements were made recently by teachers in the public schools of a typical American community. They serve to illustrate the value attached to the study of aviation in the elementary schools of this country. That children are vitally interested in this fascinating and significant phenomenon of modern life few who know children will doubt. To utilize this interest in wholesome and worthwhile educational participation is an opportunity which teachers of the early grades may seize upon to splendid advantage. The problem which often faces the average teacher, however, is that of obtaining for herself authentic data relative to the fundamental facts of aviation. The purpose of this article is to give in simple, non-technical language some aviation information which will answer typical questions raised by children in the early years of elementary school and which will prove helpful to teachers.

What Makes Airplanes Fly? Strange as it may seem, the modern airplane is a very stable craft which does not tend to fall topsy turvy at the slightest provocation, as so many people believe. The unnatural position of an airplane is that of falling end over end. The airplane is so constructed today that so long as speed is maintained the ship will ride in an upright position just as a well-balanced boat will ride on the water.

The chief principles of flight are somewhat simple. First of all, the architectural proportions of the modern airplane are so proportioned as to force it into a horizontal position when maintaining flight speed. For a plane to fall helplessly is not only unlikely but positively unnatural. Only when serious constructional difficulties, such as defective

FIGURE I

materials or workmanship, lack of proper upkeep, or accident arise, will an airplane cease to fly in its natural upright position and fall helplessly. The security of flying to a large degree rests on the fact that the airplane's natural element is air and that the atmosphere is sufficiently buoyant to support the airplane when in flight; that the flying machine because of its form, material, and construction and because the character of the atmosphere normally causes it to remain comfortably upright while riding through the air.

Safety in flying, however, depends largely on speed. The control and balance of an airplane rest on the speed maintained. Speed is maintained by the engine-driven propeller which screws itself through the air on the same principle as that of a wood screw.

Figure I, a cross-section of one wing, shows the effect of the air on the wing of an airplane and how flight results. As speed increases, the air affects the wing in two ways. First, as shown by the arrows, it strikes the lower side of the wing which is lower at the

This article by Mr. Engleman who was an airplane pilot during the World War is published in response to a popular request from teachers for scientific facts regarding aviation. The article which precedes shows how some of the facts have been put into actual practice in a school-room unit.

rear. Thus, the plane is raised just as a kite is lifted. The greater part of the lift, however, comes from the effect of the air on the curved surface of the moving wing. The drawing just referred to shows that the wing

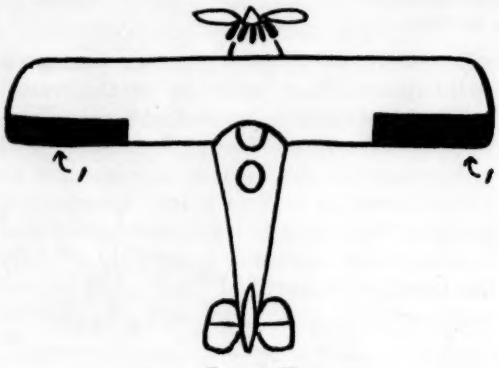

FIGURE II

is curved in construction with the leading edge much thicker than the trailing edge. In fact this curved portion of a large passenger plane is several feet thick. This curved surface strikes the air and forces it up and over the top of the wing much as swiftly running water will bound over stones in the river bed. The partial vacuum thus formed on top of the wing causes the ship to be forced upward and into it.

The question of how the airplane is maneuvered is somewhat simple. The propeller pulls the plane forward and the tail serves much as a weather vane and tends to hold the ship in any given position. There are three movable control surfaces on the modern airplane. Near the tips of the wings and as a part of the trailing edge is found a hinge-like portion of the wing which may be turned up or down. These control surfaces or parts are indicated by number 1 in Figure II. These parts are called ailerons. The ailerons are used for tilting the wings. In making a turn the plane is banked by means of the ailerons. They are controled by a control column or "stick." A slight movement of the stick or wheel to the right will cause the aileron on the right wing to go up and the one of the left wing to go down. The air striking these surfaces lowers the right wing and raises the left.

On the tail surface are found the other control surfaces. The rudder which is number 2 in Figure III is in vertical position and is used largely for determining horizontal direction. It operates much as a rudder on a boat. The rudder bar, which is controled by the pilot's feet, controls the rudder. Thus if the pilot wants to veer slightly to the right, he exerts slight pressure with the right foot and the rudder moves a bit to the right, As the air strikes this surface it forces the whole tail surface to the left, causing the nose of the plane to veer to the right. The rudder and ailerons are used simultaneously when making turns. The banking caused by the ailerons prevents skidding and the rudder places the plane in position to prevent side slipping while the wings are tilted by making use of the principle of centrifugal force.

In horizontal position on the tail surfaces are movable flaps somewhat in shape like the ailerons. They move together, up or down. These surfaces are called elevators or "flippers." Their function is that of controling vertical flight. Upward or downward directions are maintained by the elevator. By pushing the "stick" or control column forward or backward, the pilot may turn his ship downward or upward. Downward, quite naturally, is obtained by pushing forward. This lowers the elevators and as the wind strikes them the tail is raised and downward goes the plane. The reverse motion of the control column brings the ship into climbing position. The flipper or elevator is indicated by number 3 in Figure III.

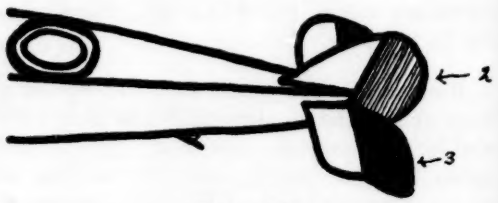

FIGURE III

What are the Names of the Parts of Airplanes? For a teacher to guide properly children in an aviation acitivity she at least should know such essential facts as the following:

Plane types—A monoplane is an airplane with one plane; a biplane is one with two planes; and a triplane is one with three planes.

Amphibian—An airplane equipped with landing gear which will enable it to land either on land or water.

Autogiro—An airplane that has rotating wings.

Tractors and pushers—Planes may be equipped with one or more wings and with propellers either in front of the wings—tractors—or behind the wings—pushers.

Engine types—Most aviation engines are of radial type and are air-cooled.

Construction—The construction of planes differs. The internal framework has, in recent years, largely changed from wood to metal. The exterior surface is generally one of three materials: cotton fabric, ply wood, or metal. The inside of passenger planes is lined with sound-proofing materials.

Fuselage—The term applied to the body of an airplane.

Stick—The control or steering column.

Cockpit—The part of the fuselage where the pilot sits.

Strut—A metal or wood brace between the wings.

Retractible landing gear—A landing gear which may be drawn inside the fuselage while the ship is in flight.

Instrument board—The panel in front of the pilot on which flying instruments are installed.

Altimeter—An instrument for measuring altitude.

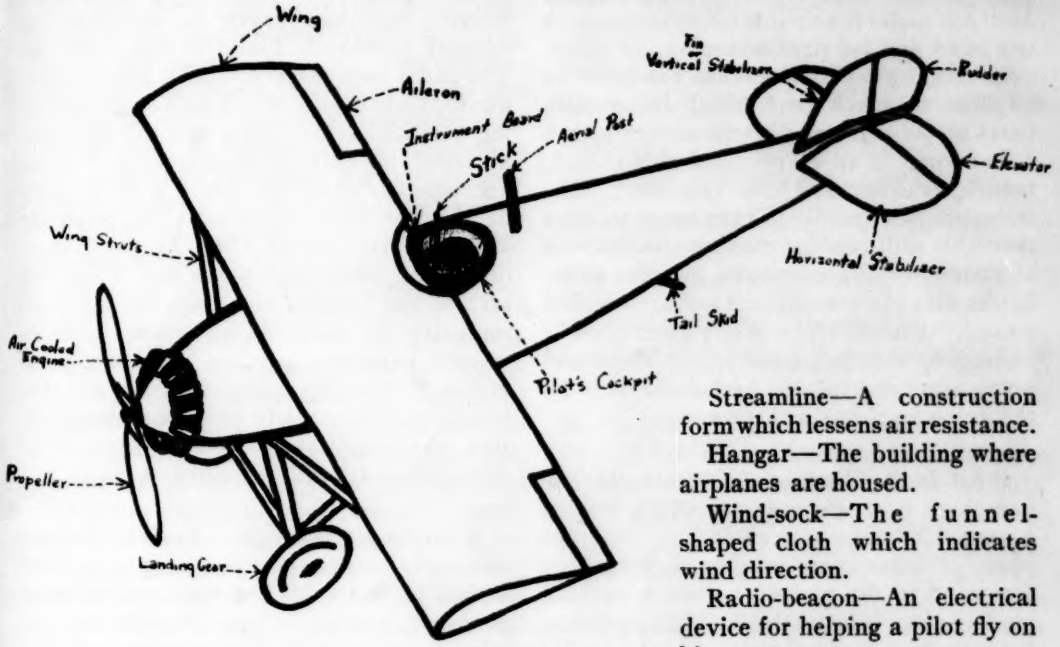

FIGURE IV

Streamline—A construction form which lessens air resistance.

Hangar—The building where airplanes are housed.

Wind-sock—The funnel-shaped cloth which indicates wind direction.

Radio-beacon—An electrical device for helping a pilot fly on his course.

Pontoons—Boat-like landing gears used by seaplanes.

Runways—Hard surface tracks on which airplanes land and take off.

By using a small airplane model such as can be bought at most any novelty counter, and by using a nomenclature diagram such as Figure IV, a teacher may quickly teach the names and functions of the various parts of a plane.

What Use of Airplanes Is Made Today? The airplane plays a rather vital part in many phases of men's activities today. Although practically everybody recognizes its place in military work and in carrying passengers, freight, and mail, comparatively

few know the many uses to which it has been put. Today, the airplane is used by fishermen to locate schools of fish and by agriculturists to dust cotton and to spray fruit trees. It is of great aid not only in locating forest fires but as a means of carrying fire-combating equipment quickly to the place most needed. This important invention is of great aid in making rapid surveys of land that is almost inaccessible to the ordinary ground surveyor and in map-making. Man has found it valuable for advertising on one hand and for sight-seeing on the other.

In recent years the explorer has used the airplane to reach the almost inaccessible parts of the earth and rescue agencies have called upon it to carry relief to the sick, famine-stricken, and the marooned. The scientists call upon it to take them to more favorable altitudes for making observations of astronomical phenomena, and the newshawks with camera and note pad are whisked away by it to the scene of any great comedy or tragedy that has news value. These and many other services are performed daily by the flying machine in this country.

What Is the Work of the Parachute? The parachute is a safety device which seldom is used. It is never used except for stunt purposes or when some serious accident has happened to the plane, or when a suitable landing place is unavailable. This apparatus, however, is valuable for emergencies and is part of the regular equipment of air mail pilots and military flyers.

The parachute is made of silk and when unfolded and floating in the air is shaped like an umbrella. The folded parachute is held in a rectangular-shaped package by means of a rip cord. When the distressed flyer jumps (bails out) from the plane he pulls this rip cord which releases a small petal "shute" only about a yard in diameter. This little "shute" is attached to the apex of the big umbrella and thus pulls it from the folded shape and into position for the air to catch its folds and so support the falling man. Parachutes are, in general, carried in one of three positions: on the shoulders, on the chest or lap, or as a cushion in the seat. Sometimes flyers carry an extra "shute" to be used in case the first one does not open properly.

How Does the Weather Effect Flying?— Bad weather has long been a barrier to flying. Fog and heavy rain provoke many hazards and mist which turns to ice as it strikes the airplane's surfaces is much to be feared. Ice on the wings has brought many planes to earth, sometimes out of control. Science has done much to conquer the dangers previously found in bad weather. The radio now keeps the pilot informed of atmospheric conditions as well as of his flying position. Instruments tell the pilot his air speed, his altitude, his direction of flight, and whether or not his plane is on an even keel. Vision is not so necessary since his instruments are his eyes. Often he can fly over or around bad storm-areas and when the area is too large or too deep, he can with impunity fly there. At all times the commercial passenger airplane has direct communication with ground stations and the pilot thus has complete weather reports relative to precipitation, temperature, wind direction and speed, visibility, etc.

What Should We Know About the Airport? Wherever possible groups studying aviation should be taken by the teacher to a well-equipped airport. More information and more stimulation on the subject may be received in this way than in any other. While at the airport, attention should be called to the long, hard-surfaced runways and their resemblance to the spokes of a wheel. This spoke-like arrangement permits a plane to take off into or land into the wind regardless of its direction. The hangars and repair shops are an essential part as is the weather computing office and scientific equipment. The Department of Commerce office, the ticket office and waiting rooms and the office of the airport manager must not be neglected. The siren and the different lights will stimulate inquiry relative to the rules of flying, particularly on landing and taking off. Of course the wind-sock and its use for determining wind direction will be observed.

If possible the children should see a passenger plane come in, disgorge its passengers and mail, be serviced, inspected and reloaded, then take off again.

What Is Happening in Aviation? Children are thrilled by aviation history from the first flight in 1903 by Wilbur Wright which lasted just twelve seconds to the transpacific solo flight of Amelia Earhart Putnam a few months ago. Children should know that both poles have been visited by airplane and that of the four successful trips to the north pole, three were made by air. The romance of flying describes the round-the-world solo flight, the ascent into the stratosphere by both balloon and airplane, the conquering of the ocean by the dirigible, the endurance flights of recent years which lasted weeks, and the speed records which are phenomenal. The whole story of aviation is fascinating to the average child at a comparatively early age.

What Pupil Activities Usually Result from an Airplane Study? Of course no two groups of pupils will attack and carry out an activity in the same way. Therefore, I shall not presume to suggest the ways in which members of a group should express themselves while following and developing an aviation interest. It is practically safe to say, however, that a normal group will participate in any or all the following, while aviation is the center of interest: dramatic expression through play and literary productions, construction of airports and planes, art, music, poetry, practical problems, research on many phases of the problem which in turn calls for gathering information through reading, conversation and observation which in turn call for evaluating and judging. Best of all, probably, is the group participation in a cooperative enterprise which allows much for individual initiative but at the same time calls for group planning and group discussion. Thus opportunities for language as well as for thinking are in abundance.

What Reading Materials Are Available? Although much is being written on the subject of aviation very little has been done on the ability and interest level of the primary grades. The following publications are suggested as being among those best suited for elementary grades. Those starred are the ones found very helpful for the lower grades.

Collins, A. F. *Aviation and All About It.*
New York: D. Appleton-Century Company, 1929. $2.00

Crump, Irving. *The Boys' Book of Airmen.*
New York: Dodd, Mead and Company, 1927. $2.00

Engleman, F. E. and Salmon, Julia. **Airways.*
Boston: D. C. Heath and Company, 1931. $.80

Floherty, J. J. *'Board the Air Liner.*
New York: Doubleday Doran and Company.

Glassman, Don. *Jump!—Tales of the Caterpillar Club.*
New York: Simon and Schuster, 1930. $3.00

Heiderstadt, Dorothy. **Jimmy Flies.*
New York: Frederick A. Stokes Company, 1930. $1.00

Jacobs, A. M. *Knights of the Wing.*
New York: D. Appleton-Century Company, 1928. $2.00

Jones, Paul. *An Alphabet of Aviation.*
Philadelphia: Macrae Smith Company, 1928. $2.00

Le Page, W. L. *The A. B. C. of Flight.*
London: Chapman and Hall, 1928. $2.00

Post, Augustus. *Skycraft.*
New York: Oxford University Press, 1930. $3.00

Romer, A. R. and Romer, M. T. **Sky Travel.*
Chicago: Rand McNally and Company, 1930. $1.48

Tobias, Frank. **The Picture Book of Flying.*
New York: Macmillan Company.

The writer is well aware that the subject of aviation is in no way covered by this brief article. His hope is that some who read it may be stimulated to embark on what he believes will prove to be a very stirring adventure—an aviation activity with a group of American boys and girls.

Children's Experiences with Form in Nature

BERTHA STEVENS
Author, *Child and Universe*
Downer's Grove, Illinois

NATURE is a form fountain, J. Arthur Thomson has said. In the continuing story of evolution there are products of form all along the way; some we can see with unaided eyes, but many more need microscopic viewing.

Form brings us first perhaps a message of beauty. Mary Webb in *Poems and the Spring of Joy*[1] has a prose chapter about the "Beauty of Form" which is intimate and accurate in the delightful discoveries it shares with a reader, and Japanese Hokku poetry can serve a similar purpose.

There are books which hold that the aesthetics of form has an objective aspect apart from an individual's purely personal reaction to it. Among these are *The System of Animate Nature*[2] Vol. II and *Nature's Harmonic Unity*.[3] The former in a chapter on "The Fact of Beauty" points to the physiological and mental effects of form; the latter shows that laws of growth in nature produce form unity which the author calls the highest element of beauty. Other pertinent books are *On the Relation of Phyllotaxis to Mechanical Laws*[4] and *On Growth and Form*[5]; both have to do with the physical factors which determine and characterize the evolution of form.

We are told that there are orderly arrangements of atoms which present to our consciousness, visually, definiteness of outline whether in symmetrical or asymmetrical design; that we respond to these and call them forms.

At best, we cannot yet learn how form becomes except in part. But science is in possession of the great truth that form evolves on law. It can trace stages in form development. It can discover that the movement which produces form takes always the line of least resistance; that incipient diversities reproduce and multiply and produce in time a much altered form result; that polar force, cohesion, gravity, friction all have their influence. It can assume that form-producing movements are rhythmic when they record themselves in rhythmic lines and patterns. It knows that living bodies are capable of interfering with their own form process as non-living bodies are not. But the source of the original impulse which starts all form remains an enigma to science, as any ultimate does.

Almost all of us discovered as children the multiplicity of nature's forms; almost all of us have forgotten it as grown-ups. Perhaps if some adult in our childhood had helped us to associate with our form-finding some gripping ideas about the natural order, we should not have forgotten. We could have been helped to a fuller, richer life consciousness that would have increased our pleasures in discovery and appreciation as children and later, and had its part in evolving our mature philosophy. Form implies organization, and organization is order—the key to the universe.

The fall is an excellent time for promoting form experiences with children; but each season has its special offering. A start can be made by observing closely the forms of common seeds and seed vessels with the aid of a magnifier. Children are surprised at the diversity and beauty of the forms revealed even in the initial examination of a few. This experience may start them collecting in woods, field, garden, or along the shore. The various forms they find can be printed into disks of clay, many kinds being assembled in one disk and when the clay has become hard and dry the imprints can be made to stand out conspicuously if the clay around them is given some contrasting color with tempera paint. Some of the forms which make particularly interesting impressions are seed-vessels of Spanish needle, eucalyptus, poppy,

[1] London: Jonathan Cape, 1928.
[2] J. Arthur Thomson. New York: Henry Holt and Company, 1920.
[3] Samuel Colman. New York: Putnam's, 1912.
[4] A. H. Church. London: Williams and Norgate, 1901.
[5] D. W. Thompson. London: Cambridge University Press, 1917.

pine cones, maple-keys, acorns, and almost any sea-shells.

Fruits and vegetables which make interesting designs, used thus, are cantelopes, acorns, summer squashes, artichokes, and tomatoes impressed on the stem end.

Fruits and vegegables cut through the center transversely to the stem reveal centered designs of seed carpels and seeds enhanced with interesting color patterns. The pomegranate is an outstanding example. Tubers like carrots and leaf vegetables like the cabbage offer other sets of discoveries. Design paintings in color based upon these cross sections give enjoyable aesthetic employment to children and are instructive as well.

The drawing of seed, vegetable and fruit designs upon etched glass slides for a projection lantern is not only interesting but it compels children to draw detail accurately—since all misconnections and careless lines are magnified to a conspicuousness that calls for sedulous improvement. Photo-micrographs, blue prints, ink prints and shadographs are other means for dealing with and establishing the idea of form.

Whether children are finding their form experience in seeds, fungi, leaves, flowers, shells, crystals, or some other department of nature, they will discover—as their familiarity with form grows—certain basic form classifications. They will learn that many forms are built upon that fundamental movement in nature, the spiral; that many also are built upon the circle—sometimes in concentric and sometimes in radiating design. They will discover spheres, cones, pyramids and many other shapes. Among the curves they will find, beside the spiral already referred to, the arc which a rainbow illustrates and curves that instead of winding about a center fly off into space headed straight for infinity. They will find branching forms—in leaf veins, corals, crystals, mineral percolations—simulating the form of a tree.

The chief value of this form experience to them as children is the realization that form and design wherever found are as previously stated manifestations of order; that the recognition of the omnipresence of form in nature is recognition of the omnipresence of orderliness. And nature's beauty, they will discover, is largely a beauty of order. Following an experience with shells, or with any other class of nature's creations, children can respond to the meaning that runs through Tennyson's lines:

> "See what a lovely shell,
> Small and pure as a pearl
> Lying close to my foot,
> Frail but a work divine,
> Made so fairily well
> With delicate spire and whorl,
> How exquisitely minute,
> A miracle of design."

Regarding the May Issue

The May issue of CHILDHOOD EDUCATION will be a special number devoted to arithmetic, compiled and edited by Dr. W. A. Brownell of Duke University, Durham, North Carolina. Among the contributors will be:

Edwina Deans, Public Schools, Greensboro, North Carolina
B. R. Buckingham, Ginn and Company, Boston
Katherine L. McLaughlin, University of California, Los Angeles
Ada R. Polkinghorne, Chicago University Elementary School, Chicago
Lorena B. Stretch, Baylor University, Waco, Texas
Josephine MacLatchy, Ohio State University, Columbus

Forty-second Annual Convention
Association for Childhood Education

Swampscott, Massachusetts

June 26–29, 1935

Convention Theme

How Today's Teacher Can Meet Modern Problems

General Evening Sessions

Wednesday: **The Teacher Sets Her Own House in Order**
An inventory of the past and a philosophy for the future

Thursday: **The Teacher Makes an Alliance**
Cooperation of home and school for the benefit of the child

Friday: **The Teacher Falls in Step With a Marching Nation**
Education in relation to changing national scheme

Saturday: **The Teacher Explores the World**
Understanding of other countries basic to educational progress at home

General Morning Sessions

Thursday: Setting the stage for the study groups
Friday: Discussion of policies and procedures for local branches and state associations
Saturday: Discussion of schools for young children in other countries

Study Classes

Study classes under expert leadership will meet each morning for a two-hour period. Topics for these classes are:

Considering factors in the normal development of the individual child
Relating music to the young child's life
Relating natural science to the young child's life
Remaking the curriculum for the modern school
Surveying early childhood education in the modern school
Studying parent education in its relation to the child and the community
Evaluating emergency nursery schools
Training teachers to meet modern problems
Acquainting the community with its schools
Surveying educational practices in the United States (A study class for visitors from other countries)
Surveying later elementary education in the modern school

Business Sessions

The two business sessions on Wednesday and Saturday afternoon will be featured by roll call by states with delegates standing, brief reports of interesting Association activities, general discussions of topics vital to the Association, and summaries of discussions in study classes.

Special Features

Swimming and all beach sports; CHILDHOOD EDUCATION luncheon; conference hours with leaders of classes, officers of the Association, and chairmen of committees; nautical dinner; an afternoon drive.

General Information

Headquarters Hotel: New Ocean House, Swampscott, Massachusetts

Housing Bureau: Write to the housing bureau at New Ocean House for information concerning other hotels, cottages on the beach and rooms in private homes.

Railroad Rates: Special rates of one-and-one-third fare will be available to members of the Association providing one hundred members attend the convention and secure certificates. Consult your agent concerning the best route to use. Request a certificate, not a receipt, when purchasing your ticket.

Names of speakers and leaders of study classes will appear in the May issue.

NEWS FROM HEADQUARTERS

MARY E. LEEPER

MORE NEW A.C.E. BRANCHES

Twenty-eight new groups from seventeen different states have affiliated with the national A.C.E. since September 1st. The state of Washington announces as its goal "an A.C.E. Branch in every county" so we shall continue to look for more new Branches.

Groups affiliating since those announced in the March issue are:

Orlando Primary Council
Secretary, Marjorie Brown
Marks Street School, Orlando, Florida

Anderson Association for Childhood Education
Treasurer, Yula V. Wood
1202 Louise Street, Anderson, Indiana

Bemidji Primary Kindergarten Club
Sponsor, Trix Barbour
State Teachers College, Bemidji, Minnesota

Joplin Primary Council
President, Ethel Inez Fly
West Central School, Joplin, Missouri

Schenectady Association for Childhood Education
President, Lillian Goetz
1046 Parkwood Boulevard, Schenectady, New York

Madison County Association for Childhood Education
President, Mrs. Robert Harris
Route 8, Humboldt, Tennessee

Moore County Association for Childhood Education
President, Ruby Campbell
Lynchburg, Tennessee

ANNOUNCING *Curriculum Trends*

Dr. Laura Zirbes is the author of *Curriculum Trends*, the second A.C.E. bulletin for 1935.

Teachers and students will welcome this bulletin which begins with a brief review of the discussions on curriculum trends at the Nashville convention. This is followed by chapters on the need for change in the present curriculum, an analysis showing the trend of the changes now taking place and what we as teachers of young children can do about it.

The bulletin will be mailed to contributing members and Branch presidents and secretaries about April 15th. Non-members may secure it from the Association for Childhood Education, 1201-16th Street, N.W., Washington, D.C.

LAWS AFFECTING YOUNG CHILDREN

The Legislative Commission of the National Education Association has just issued a thirty-two page bulletin called *School Legislation Affecting Young Children*. In announcing the bulletin, Sidney B. Hall, Chairman of the Commission, makes this statement: "The increasing interest now being shown in the welfare of young children will sooner or later lead to a demand for a systematic educational program which will in turn be based upon carefully considered state legislation. One of the first needs of those interested in children is to know the nature of existing laws affecting them. This bulletin has been prepared with that need in mind."

Copies of the bulletin may be secured from the National Education Association, 1201-16th Street, N.W. Washington, D.C. Price 15¢.

NATIONAL COUNCIL OF CHILDHOOD EDUCATION

Three interesting sessions of this Council were held during the meeting of the Department of Superintendence in Atlantic City in February. A luncheon conference discussed "Nursery School Education: A Critical Appraisal." An afternoon forum conference considered "Guidance for Continuous Growth." On Wednesday night before a joint session of the Department of Superintendence and the National Council of Childhood Education, Dr. Mary E. Woolley spoke on "The Twentieth Century in Its Relation to the Child." Reports of these conferences will be found in later issues of CHILDHOOD EDUCATION.

BOOK REVIEWS

Editor, ALICE TEMPLE

An important social agency.—It is now twenty-five years since the founding in Chicago of the Juvenile Psychopathic Institute, the first of the modern child guidance clinics, and it is therefore very fitting that at this time there should appear a book dealing with the history and present status of the child guidance movement in this country.[1] Dr. Stevenson, because of his position as Director of the Division of Community Clinics for the National Committee for Mental Hygiene and because of his broad and judicious viewpoint, is eminently fitted to write such a book. The volume is decidedly readable and its shortness undoubtedly contributes to this readability. It is to be feared, however, that its brevity may, to some extent lessen its usefulness for the readers not actively engaged in child guidance work, as the author has had to presuppose a good deal of knowledge of trends and controversial issues on the part of the reader.

After an introductory chapter on child guidance in its larger aspects, three chapters are devoted to the history of the child guidance movement in its more limited sense. One is impressed with the extremely rapid increase of child guidance clinics during the third decade of the century and the question arises as to how much it was in the nature of hot-house forcing. Nevertheless, the final impression left by the historical summary is that the child guidance clinic has met a real need with a reasonable degree of success, for the clinics have weathered the depression remarkably well when one considers the specialized and somewhat limited nature of their service.

The remainder of the book is a discussion of the practices and aims of the clinic of today and the trends and probable future development of child guidance. Of these chapters the one titled "The Approach to the Case" is probably of the greatest interest to the general reader. This is a remarkably clear and persuasive exposition of what is often spoken of as the "mental hygiene viewpoint." As the authors say elsewhere this viewpoint has not to a considerable extent lost its novelty. But we have reached a point where many people talk glibly of looking for the causes of undesirable behavior who have no real feeling for what this means. This chapter ought to go a long way towards putting real life into what is in danger of becoming an empty phrase.

Throughout the entire book the authors keep constantly before the reader the fact that the next child guidance clinic can be of real use only if its activities are extremely closely integrated with the other activities of the community. They have no patience with the attitude which one sometimes sees, both on the part of the clinic staff and of agency workers who refer cases to the clinic, that the child guidance workers have been to Mount Sinai and have brought back the tablets of the law with them. As they say, "It has been pointed out repeatedly that the educational values of this interchange work both ways: the clinic has something to give the social agency in the techniques of influencing individual behavior and the social agency has something to give the clinics in the techniques of specialized social adjustments. The clinic risks these educational values if it assumes gratuitously the role of teacher; the job is primarily one of coordination."

There is no section devoted specifically to the relationship of the child guidance clinic to the school system but there are repeated references to this relation throughout the book. In discussing the trend which clinics are showing to become definitely affiliated with some other social agency in the community, the authors reject the school because of the sharp limitation in the age group with which the school deals. Considering the view of their function which most school men at the present time have, this is a valid objection. But if the attitude which some educators have should become more prevalent, that education of the entire community is a school responsibility, it is quite conceivable that at some later date a child guidance clinic offering its services to the entire community might find a congenial home within the public school system.

The reader who wishes to learn about the purposes and methods of present day child guidance clinics, in order effectively to take advantage of the services offered, will probably find this volume the most useful of any published.

TEMPLE BURLING, Psychiatrist
Winnetka Public Schools

[1] George S. Stevenson and Smith Geddes. *Child Guidance Clinics: A Quarter Century of Development.* New York: The Commonwealth Fund, 1934. pp. vii + 186. $1.50.

What every girl should know.—This book[2] of seven hundred pages contains "what every girl should know" in readable yet scientific and interesting yet accurate form. It will provide an estimate of the expense involved in having a baby, a list of articles needed for its safe arrival and subsequent comfort, a time schedule for its care, and a normative summary of its psychological development, and in addition, a delightfully chosen anthology of verse concerning not only the baby but the universe.

True the book comprises three distinct volumes with three distinct topics usually dealt with by three distinct specialists but they are simply labelled "parts" and the whole is neither large nor heavy. While as a rule, except under the regulations of a home economics course, one would hardly approach all three parts with equal interest and urgency, still all three parts are at least ultimately important to the modern mother. The first part begins with the chemical composition of the world and living organisms and goes on through the evolution of man and reproductive mechanisms to the anatomy and physiology involved in human conception and pregnancy. One is impressed alike with the inclusion of cosmic theory and of directions regarding the minutest details of household planning. The second part deals with normal labor, the child at birth and its early physical care, not in general terms, but with the exactitude of a vade mecum. The third part covers the psychological care of the child, prefacing the exposition of the chronological sequence of growth—changes and desirable parental attitudes with a consideration of the development of the nervous system.

There is no evidence anywhere of individual research, no hint of unpublished results of experiments with groups of infants; the book is a compendium from the best modern authorities in these various fields, and yet one suspects that practical contact with children in the home situation—not the nursery school, the value of which is questioned—has prevented any blind acceptance of extreme views or labelled schools. There is one exception to this which the author frankly admits. She favors the "organismic approach." This leads her to the use of certain terms in describing behavior and learning which the reader may not find as meaningful and apposite as she feels them to be. Yet to the young woman who will "read, mark, learn and inwardly digest" Dr. Sherbon's book one, at least, of the most recurrent terms will be clear, for she herself will have had "a complete experience."

MARY A. M. LEE, M.D., Ph.D.
Chicago, Illinois

Material for children's reading.—Many a classroom teacher has long wished for such a comprehensive collection of stories and verse as may be found in a recent anthology.[3] Most of the nine hundred pages of the necessarily bulky volume with its six hundred selections are devoted to literature for children from the first to the ninth grades. There is a generous number of Mother Goose rhymes, games and ballads together with some modern jingles, nonsense verse and limericks chosen from Christina Rossetti, Lewis Carroll and Edward Lear. Next comes a selection of fables followed by many of the best folk tales, "literary fairy tales," myths and legends from different countries. Finally we find nature stories, fiction, biography, narrative and lyric poetry. Following each type of material is a well-selected bibliography.

Only the older children will read for themselves from this volume because of its format but the teacher of the younger ones will find here much that she will want to use during the literature period. Rich as this book is in content one wishes that its compilers had included some of the newer material for children of nursery school and kindergarten ages.

The several appendices will be of interest to the teacher. Among them is the story of children's literature from the time of *The Hornbook* to the present day, a brief treatment of the illustrators of children's books and short biographical notes on some two hundred authors. A very complete index facilitates the finding of any bit of literature which the book contains.

What about the makers of children's books?—With the steadily increasing provision for recreational and other reading through the book table, the school library and the public library many young readers have developed an active curiosity concerning the authors and illustrators of the books they like best. In response to this interest the editors of *The Junior Book of Authors*[4] have compiled brief accounts of the lives, interests and activities of some two hundred fifty of the makers of those books which seem to satisfy the inter-

[2] Florence Brown Sherbon. *The Child, His Origin, Development and Care.* New York: McGraw-Hill Book Company, 1934. pp. xix + 707. $3.50.

[3] Edna Johnson and Carrie E. Scott. *Anthology of Children's Literature.* Boston: Houghton Mifflin Company, 1935. pp. xxvii + 914.

[4] Stanley J. Kunitz and Howard Haycroft, Editors. *The Junior Book of Authors.* New York: The H. W. Wilson Company, 1934. pp. xv + 400. Price $4.00.

ests and needs of children from "seven to seventeen" years of age. Each is accompanied by a photograph of the writer or illustrator as the case may be.

Many of the sketches are autobiographical. Marjorie Flack, for example, tells us that *Angus and the Ducks* is a true story about a real dog and some real ducks and that Wagtail Bess was her own Airedale.

"In our home," writes Wanda Gag, "drawing and painting were taken for granted. My father decorated houses and churches on week days, and painted in his attic studio on Sundays. In my mother's family the creative urge, though undeveloped, was irrepressible. We children all drew as soon as we could hold pencils. In the evening all seven of us sat around the kitchen table, and after lessons (sometimes before) we drew and wrote until bedtime." (p. 159)

Equally interesting are many of the short biographies of such contributors to the field of children's literature as Hugh Lofting, Padriac Colum, Elsie Singmaster, Anna Sewell, and a host of others.

The Children's Almanac of Books and Holidays is reprinted in this volume, thus adding materially to its value. Certainly *The Junior Book of Authors* should find a place on the shelves of all children's libraries. Students of literature for children will also find it a useful reference.

Another story by the Newberry medal winner.—It was a great satisfaction to lovers of good books for children to have the Newberry medal for 1934 awarded to Cornelia Meigs' *Invincible Louisa*. Not only was this life of Louisa M. Alcott an outstanding book but no other American writer has made a more distinguished contribution to the field of children's literature than Cornelia Meigs. Her *Willow Whistle*, *Swift Rivers* and other American tales are deservedly popular with teachers and children. They are good literature and also lively and sympathetic interpretations of American life. No author of children's books is more deserving of an award. Now, Miss Meigs has given us one of her most satisfying stories, *Wind In The Chimney*.[5]

In the days when Washington was President of the United States, a courageous young English widow brought her three children to this country to be near some Philadelphia relatives. Mrs. Moreland with Richard, Ann and Deborah found a house that just suited them, which they longed to own, but the wealthy Philadelphia landlord was not sure that he wished to sell it. How they finally won the right to buy this little house with the "wind in the chimney" involved many adventures and sacrifices for each member of the family.

The girls will enjoy the happy accident that resulted in Debby having a part in the minuet for a beautiful wedding where George and Martha Washington were guests. Better still was Debby's heroic struggle to weave the famous Wheel of Fortune coverlet that really won the house for the Moreland family. Boys will be thrilled by Richard's journey west with a pack train, the race between two rival drovers and the winning of the bells which were given to him for his rescue of a competing teamster. It is all good reading for Miss Meigs is a gifted story teller. The characters and the plot are warmly appealing and young readers are going to put this book down with a sign of satisfaction and still another sign of regret that so delightful a tale has come to an end.

MAY HILL ARBUTHNOT
Western Reserve University

[5] Cornelia Meigs. *Wind In The Chimney*. New York: The Macmillan Company, 1934. Pp. 260. $2.00.

There is a supreme need today for higher moral and spiritual standards. That is a realization no longer confined to preachers and religious teachers. Men and women of all creeds, of all nationalities and races, who really care for the future of humanity, are at one on this question. We must build character on the enduring foundation of the moral and spiritual, and the laying of this foundation must begin with the child.—From an address by *Mary E. Woolley*, Joint meeting of the Department of Superintendence and the National Council of Childhood Education, Atlantic City, February, 1935.

AMONG THE MAGAZINES

Editor, ELLA RUTH BOYCE

The December issue of *Child Development* reports two studies which are of special interest to kindergarten and nursery school teachers. The first is a study by Helen C. Dawe and is titled, "The Influence of Size of Kindergarten Group upon Performance." This study was made at the Institute of Child Welfare, University of Minnesota. It calls attention to the fact that the relative merit of large and small classes and of the various seating positions within the group has been of considerable interest to teachers and workers in the field of education and psychology, but that investigations of the problem have been confined to the elementary grades and to classes at high school and college level. Miss Dawe's study is designed to discover the same facts at the kindergarten level. Effort was made to find out, first, how much kindergarten children retain from a single reading of a new story, and second, the degree to which the children enter into a discussion of materials presented to them for the first time. The subjects in the first project were 433 kindergarten children from both morning and afternoon kindergartens, in groups ranging from fifteen to forty-six children. In the second project 460 children were studied in groups of fourteen to forty-six. The studies are described in detail and the tabulated results are given. In summary the author says that "increase in size of group in the kindergarten—at least between the limits of fourteen and forty-six in a group—does not reduce the amount of a story which was retained by the children, but that increase in the size of the group means a cutting down in the percentage of children who take part in a discussion, in the total amount of discussion and in the average number of remarks per child. Position in the group apparently does not influence the amount of a story which these kindergarten children retain but does affect the extent to which they enter into a discussion."

The second study, "A Tentative Report of the Influence of Nursery School Training upon Kindergarten Adjustment as Reported by Kindergarten Teachers," is by Hazel M. Cushing. This study was made in Rochester, New York. Starting with a statement of the difficulties of such an investigation as is described, the author goes on to summarize the studies which have been made, and next to describe the set-up of the present study, which is described as concerned with the adjustment of nursery school children to the kindergarten situation as estimated by the kindergarten teachers. "Over a period covering approximately two years it was possible to get teacher ratings on 33 children, 10 boys and 23 girls, who had received training in a demonstration nursery school in session from 8:30 A.M. to 3:00 P.M. The average nursery school attendance for the group as a whole was 172 days, the range from 81 to 326 days. Intelligence quotients based upon the Kuhlman-Binet Test ranged from 93 to 150 with the mean at 120.

"Practically all of the families involved ranked in the upper fifty percent of the population in respect to socio-economic status. In general, the children upon leaving nursery school attended public schools in the better residential sections of the city. Hence the assumption is made that they were received into kindergarten groups of fairly similar social status."

The method by which the study was made is described in detail and the program chart upon which it was based is printed in full. Health Habits, Social Adaptability, Use of Environment, and Personality Traits are the group headings. The child is rated as *always*, *usually*, *frequently*, *seldom*, or *never* expressing the particular behavior. He is also rated as exhibiting it in *less degree than the average* of the group, *average*, and in *higher degree*. In summary the author says:

"In this preliminary study of the adjustment of nursery school children to kindergarten there would seem to be no evidence that the nursery school trained child makes an inferior adjustment to kindergarten, despite his handicap in chronological age. The 33 children rated were about 4 months younger on the average than the kindergarten group with which they were placed. . . .

"When compared with a group of non-nursery kindergarten children of similar chronological age, no striking differences were observed. The

nursery school group, however, did appear to be rated somewhat superior in their total adjustment to the situation and considerably more so in general attitude.

"Mothers of nursery school children do not appear to be more demanding of kindergarten teachers than mothers of non-nursery trained children.

"Derogatory remarks concerning the adjustment of nursery school children to kindergarten on the part of kindergarten teachers may frequently emanate from experiences with isolated cases to which any of the following factors may be contributory:

1. The lower chronological age of the nursery school child combined frequently with high intelligence—such a child tends to present a problem in a conventional school group at any level.
2. The freedom and lack of restriction in the nursery school which may run counter in some instances to the greater conformity demanded in the kindergarten.
3. The use of initiative stressed in nursery school as against passive participation in the more directed types of activity of the kindergarten.
4. The fact that it is highly probable that a selective behavior factor influences enrollment in the nursery schools, that is, a higher proportion of 'difficult' children probably find their way to nursery schools as they are set up at present.
5. A certain antagonism and distrust of the nursery school on the part of the kindergarten teacher so that she may unconsciously be more highly critical of the nursery trained child.
6. The fact that the term 'nursery school' is used at present to convey a variety of situations and a varied length of training. There is a current tendency to characterize loosely any child who has ever attended any sort of preschool group for any length of time as a 'nursery school' child.

"Certainly much research is needed before facts can be stated with any degree of finality in regard to the effect of nursery school training upon the subsequent progress and adjustment of the child."

Progressive Education for February contains an interesting report of an experiment with report cards, "An Evolutionary Report Card," written by I. Grace Ball. This project was carried on "voluntarily and co-operatively" by a group of teachers in the Pasadena City Schools. The article starts with a description of the usual report card with the interest concentrated on A's, B's and C's. A discussion with the children, led by the teacher, brought forth such comments as these from the children:—"a fair report card would tell what reports we have given in class and what books we have read; how well we spell and punctuate; what's the matter and how to change it."

These remarks are summarized by the teacher as follows: "A fair report should give a clear picture of individual achievement in subject matter, of growth in personality traits, and definite suggestions as to how to improve where improvement is needed. Into the discussion crept no suggestion of comparing one record with another, a comparison inevitable in the usual marking system."

Following these suggestions the group and the teacher worked out a report. All the points the children thought important were first listed, then combined and organized—and outline resulting—with space for comments instead of grades. A mimeographed copy was given each child for evaluating his own achievement. This was then worked over with the teacher and "no comment was placed in the record unless it had been understood and accepted by the pupil, and unless he were willing to have it put in." It is interesting that, although these reports were not all favorable, no resentment or feeling of injustice was shown by any child. The next year a further step was taken in the revision of the reports. The whole outline was reorganized and some new points were added.

In addition to these changes there were these further important developments: "first, the teacher helped the child to a constructive evaluation only when her help was needed; second, the children began to ask the group to help them in their evaluation of themselves; third, the children themselves filled in the final report; fourth, the children themselves signed the reports." Very interesting reactions from the pupils and the parents made those engaged in it feel that the experiment was moving in the right direction. The report was still not regarded as static, and so many things were added that it became too cumbersome. The next step was to shorten it, the report then consisting of a statement of attendance, a foreword of explanation, and the following points:

I. Statement of the Activity
II. What Kind of a Boy or Girl Am I?
III. What Kind of Work Do I Do?
IV. What Are the Responsibilities of the Group?

These are followed by pupil's comment, teacher's comment, parents' comment.

This form of procedure is in use at the present time and every one concerned—pupils, teachers, parents—is happier with this record than with the old ones. The author feels that there have been two lines of development: a growing partnership which pupils, teachers, and parents share, and a steadily growing change in the relationship between pupil growth and subject-matter acquisition. She is convinced that this type of record makes a contribution to the growth of the child, the group, the parents, and the teacher."

In conclusion she says that certain things should be emphasized: "first, this type of record is more in harmony with our educational philosophy since it is one more way of placing child growth ahead of the acquisition of subject-matter, and has made the child an active partner in another important task of his classroom life; second, making this record has been a voluntary task for pupils and teacher. In our opinion, it would be harmful were it imposed by any teacher upon a class, or by any administrator upon a teacher; third, a growing understanding of the principles and practices of mental hygiene has been invaluable to us in this experimentation."

In the *Journal of Adult Education* for January Zaidee E. Green, writing under the title "Education Tags," depicts the various attitudes which may be held toward higher educational degrees.

"It is to be hoped that we shall soon begin to educate ourselves, to cease gluing labels on ourselves. Twenty years ago the woman who traveled in Europe submitted to the sticker craze. Today the sticker is gone. Nor does the traveled woman need a tag. Others who are well traveled can detect her knowledge of the globe. And soon, it is to be expected, those who are well educated will be able as readily to detect the educated woman's knowledge of life, books, art, and Chinese teapots, without recourse to academic transcripts. For labels peel off; they are actually fresh for scarcely a fortnight. What one knows, how one thinks, what one can do, and above all what one is doing are the important things. Formal schooling not long ago was customarily a matter of ten years, more or less. Now it is a matter of at least a score. Very shortly it will be definitely realized that self-schooling must be a matter of three score years and ten, and when this is realized the tags will be scrapped."

Educational Administration and Supervision for January has an article called "The Challenge to Institutions Preparing Teachers for Elementary Schools," by Edna E. Lamson. The author, as a member of the staff of the State Normal School at Jersey City, New Jersey, has for five consecutive semesters administered the Army Alpha Intelligence Examination to the students taking he course in tests and measurements. The purpose of this procedure was two-fold: "first, to give students a first-hand acquaintance with the group test that has influenced all subsequent group intelligence tests; second, to let students know their relative standings within their own group." But an average score of approximately 155 from class to class was so impressive that the question arose as to the relative standing of this student body with that of other groups. The rest of the article is devoted to a comparison which was made, and, under interpretation the writer says: "In all but two of the above comparisons, the students of the State Normal School at Jersey City have obtained significantly higher Army Alpha scores than any other corresponding group reported prior to 1931."

The conclusion is that the State Normal School at Jersey City has a student body of superior intelligence. Undoubtedly similar studies of the student bodies of other normal schools within metropolitan areas would reveal the same fact.

From the information thus obtained the author feels that this challenge emerges: "Do the curricula of our teachers colleges and normal schools challenge the abilities of the young men and women of high mental caliber now members of their student bodies?"

RESEARCH ABSTRACTS

Editor, ELIZABETH MOORE MANWELL

What Marking System Shall We Use? No sensitive teacher can fail to be troubled as she makes out her class report cards, using the customary system of grading. The underprivileged child with limited intelligence who may be earnestly trying to accomplish the work expected—shall he receive only the lowest grades quarter after quarter? The very bright child whose name tops regularly almost every list of achievement, and who yet makes little real effort and seldom comes to grips with reality—shall she be given constantly the high grade which will win for her still more social approval at home? What does it do to a child to see his name constantly at the foot of the list, when there seems to be nothing he can do to raise it to a more enviable position? How much does it handicap a gifted child to win high credits so easily that he falls into habits of bluffing, of making special spurts just before examinations, or of becoming contented with mediocre effort? These are only a few of the inherent dangers of our present marking system. Yet so logic-tight are most of our compartments of thinking that on the one hand we can make ourselves believe that we are planning our teaching for the good of each individual child, and, in direct contradiction, we subscribe to a system of grading which favors only those who are already favored and which may permanently take away the self-confidence of that half of our school population which most needs it.

Therefore a recent analysis of a different system[1] of grading tried out in the public school of Provo, Utah, is of interest. And while this experiment was developed with children of high school age, its implications for use with elementary school children are clear.

In the fall of 1933 all of the teachers at the Provo High School decided to devise a scheme of testing and individual study which would enable them to know more adequately the ability of each child. A battery of intelligence and personality tests was therefore given first. From these test results each child was given an index rating that indicated about the quantity and quality of work that he should do. This index number was used for basic comparative purposes with a series of objective subject-matter tests to determine whether or not credit should be given. Thus for each pupil there was an individual standard he must attain before credit for work completed could be given, a standard which was directly related to the basic index score.

The results at the end of the first semester are of interest. The largest number of failures was among the group of children who had previously been receiving A's and B's for educational achievement. The smallest number of failures was at the other end of the normal curve. It thus seemed evident that the brightest pupils had not been working near to their maximum ability.

In reporting these successes and failures to the parents the old "A," "B," "C" and "D" symbols were discarded, and the school adopted the policy of sending home two types of letters. One, called a "letter of analysis," was mailed at the end of the term to the pupil and his parents in those cases where there was clear evidence that the learning had not been comparable with the basic index number. In this letter was an attempt to analyze the causes which might be responsible for achievement being below what was expected and a suggested program of remedy. The other type of letter, known as a "complimentary letter," was also sent to pupils and parents. This letter was mailed to those whose achievement had been well beyond what was expected from the basic index scores. Thus it was possible for one pupil to receive a "complimentary letter" for doing work inferior to that of another who might receive a "letter of analysis" providing his basic index score was lower. No home report was made for the majority of the children for it was understood that in all cases where the quality and quantity of work that was expected was being done no report would be made.

In estimating the results Mr. Moffitt concludes: "Each pupil thus becomes his own standard and is awarded or penalized according to his achievement results when compared with this standard. A greater number of the less able pupils are now

[1] Moffitt, J. C. "A Substitute for Report Cards." *Education*, 55: 147, November, 1934.

succeeding and are far more happy in their school work than formerly. A greater number of the more able pupils are receiving greater challenges for a superior quality of scholarship. Educational values have more significance and formal 'marks' of course have none. 'Jealousies' and 'ill feelings' for other pupils and toward teachers seem to have been eliminated. Teachers greatly enjoy the freedom from the responsibility of deciding what 'mark' is to be given. Home cooperation is noted by the fact that the 'letter of analysis' has brought more parents to school in less than a year's time than formerly came over a period of years. The 'complimentary' letters' have created enthusiasm among pupils and parents that never existed with report cards. All pupils, in so far as we can determine, regard the plan as being objective and perfectly fair to every individual."

What Kind of a School Does Your Child Attend? A very surprising study, or rather a study with surprising results, has recently been completed at the Iowa Child Welfare Research Station.[2] This study is in three parts, all bearing on the question of the effect on the child's intelligence of his attendance at a first-class school.

The first part of the study describes the retesting of seventy-seven children who at one time had been enrolled in the preschools or elementary schools of the University of Iowa system but who, for one reason or another, had transferred to other schools, after an interval averaging five years. It was found that there was an averaged gain of 9.7 points in I.Q. in the cases of sixty-one of the children who had had several tests, but that 8.6 points of these 9.7 points were made in these children's eighteen months of attendance in the University system, before the transfer, and that no real increment was added in the forty-five months thereafter. In summarizing the findings of this part of the study the author states: "So far the findings have indicated that substantial and significant gains in I.Q. are made by children while attending the preschool laboratories and elementary schools of the State University of Iowa, and that these gains are maintained but not added to over periods of four to eight years following the transfer of these children to other schools."

[2] Wellman, Beth L. "Growth in Intelligence Under Differing School Environments." *Journal of Experimental Education*, 3: 59–79, December, 1934.

In the second part of the study sixty-one of the children who had transferred were compared with a paired group who had remained in the University schools. It was found that from the initial to the later test, an interval of fifty-five months, the transfer group gained 8.9 points in I.Q., while the continuous group gained 17.0 points over an interval of 51.2 points. The following findings are then summarized: "(1) Children who remained in the University system were higher in I.Q. at the age of eight and one-half years than those who had transferred, although at the age of four they had been alike. (2) They were higher in spite of the fact that the transfer children had gained prior to transfer, behaving intellectually during this period like those who remained. (3) After the one group had transferred, the two groups behaved differently intellectually, the continuous group adding to their gains and the transfer group not gaining.

These results and those of the foregoing section would indicate that gains in intelligence are contingent upon the type of school in which the children are enrolled."

In the third section the changes in I.Q. of sixty-eight preschool children who did not attend preschool, but who during infancy had been brought by their parents for repeated mental and physical examinations to the infant laboratory of the Iowa Child Welfare Station, are described. It was found that at the end of eight months the non-preschool children did not change appreciably in I.Q. while the preschool children increased remarkably. Although the two groups started out with the same I.Q. at the same age in the fall, by the following spring the two groups were significantly apart.

It is apparent from this investigation, which was verified and amplified in much more detail than can be given here, that the intellectual development of elementary and high school pupils may vary with the type of school experiences. "It may seem surprising that as great and as permanent a change can be accomplished in so short a period, but nevertheless the results confirm this. As to what would have happened if the transfer children had attended schools inferior to the ones they did attend, we do not have information. Neither do we know what the upper limits of stimulation are; some other school situation may be even more stimulating than the University schools."

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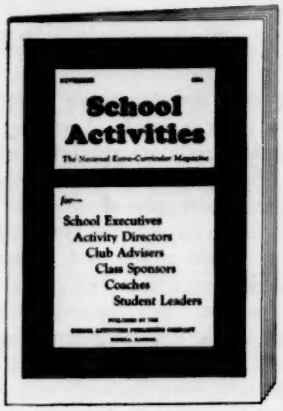

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